The STORY ARIZONA

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WILL H. ROBINSON

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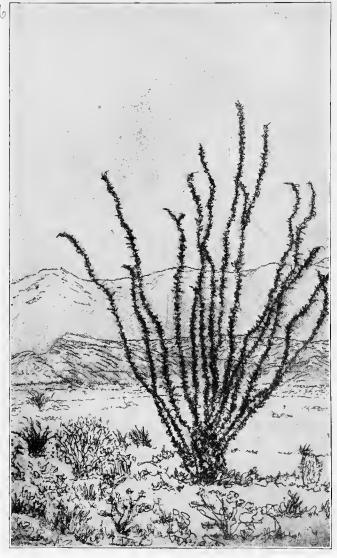
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THE STORY OF ARIZONA

\mathbf{BY}

WILL H. ROBINSON

Author of "The Man from Yesterday," "The Golden Palace of Neverland," "The Knotted Cord," Etc.

ILLUSTRATED

THE BERRYHILL COMPANY

PHOENIX, ARIZONA

Publishers

F-811 Rinh

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1371-1249 XM

HAMMOND PRESS
W. B. CONKEY COMPANY
CHICAGO

TO THE

PATRIOTIC MEN OF ARIZONA

WHO IN THIS GRAVE CRISIS OF THE WORLD'S HISTORY, THOUGH COUNTING THE COST YET WITH EYES EVER EAGER AND HEARTS FULL OF HIGH PURPOSE, HAVE CROSSED CONTINENT AND SEA AND TODAY ARE WRITING ON THE BATTLEFIELDS OF FRANCE WHAT MAY WELL BE THE MOST GLORIOUS PAGE OF THE STATE'S HISTORY, THIS BOOK IS RESPECTIFULLY DEDICATED. OCTOBER, 1918.

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PREFACE

S every one knows, the real purpose of a preface to a history is to give the author an opportunity—quite casually, of course to toss modest floral tributes at himself as he tells you not only what a Matchless Volume he has just written, but as well calls attention to the erudition employed by himself in going only to original sources for his information, and in so doing consulting freely the works of Confucius, Tatistchev and Sheherazade—all in their original tongues. If this is done with sufficient dash and élan, as the gentle reader holds the M. V. in her hands, tears of grief will gather in her left eye at the thought of all the people dead and gone who will never have the opportunity of reading the M. V., while in her right eye crystal drops of joy will glisten over the feast of reason that will soon be hers.

Now, as to our erudition as the author of The Story of Arizona, permit us to say that the languages employed by the early chroniclers of the Southwest were Spanish, Injun and Mediaeval Arizonese. Just to show our familiarity with the liquid vowels of Castile we here modestly state that we can remark in Spanish, "The shoes of our uncle's cousin are two sizes too large to be worn by our brother-in-law's stepson," with all the grace

of a Cervantes. "Me hace V. el favor de pasarme el chili con carne," as De Tornos so truly says. In Injun we can call to a Pima as we meet him in the road, "Pap t' hay!" as nonchalantly as a Salt River missionary, and when it comes to Arizonese, we look only with sadness upon the tenderfoot who calls a reata a lariat and thinks a remuda is a new Hooverized war bread.

If there is any doubt in the minds of the gentle reader about our access to Original Sources we can only say that when we arrived in Arizona, John Hance was still engaged in digging the Grand Canyon and Herbert Patrick had barely completed the hump on Camelback Mountain, from which it will be seen that at least a part of what has been here indited has the authority of contemporaneous observation; as for the rest, we have spared ourselves no labor in always going to the fact factory for facts.

While we may seem to be wasting a good deal of high-priced paper on this preface, we must say that in trying to compress the events of nearly four centuries into a single volume we found that our space would not permit any elaborate system of notes and citations. Many of our sources of information will be found in the bibliography contained herein. We also obtained much valuable information from bulletins issued by different branches of the University of Arizona and the United States Forestry Service, as well as from the proceedings of the State Legislatures and from different Arizona officials, including the Secretary

of State, the Superintendent of Public Instruction, the Adjutant General and the State Game Warden.

To come down to the primary purpose of this M. V., while we have seriously endeavored to make the story a comprehensive, if brief, survey of the evolution of the land of Father Kino into the Commonwealth we now know as Arizona, making it in a way a pageant of cowled friars, steel-capped Spanish conquistadores, painted Indians, bewhiskered miners, swaggering cowboys, and finally, the prophetic-eyed reclaimers of the desert, its first object is to give entertainment to the reader—something, after all, that should not wholly be lost sight of on the part of the author.

Also, we have kept in mind that when Mrs. Emerson de Molière Browning, of Phoenix, or Mrs. Many Horses, of the Navajo Reservation, is called upon to prepare a "paper" to be read before her respective woman's club, she has the right to expect that when she turns to The Story of Arizona she may do so in the unwavering faith that there is an authority somewhere for all that has been set down therein. In retelling stories that have more than one version, like the account of the Oatman tragedy, the killing of Mangas Colorado or the Penole Treaty, we have used the one that seemed to bear the most evidence of accuracy.

Under the weight of our responsibilities to Mrs. Many Horses, we regret that we have had to be, at times, statistical; that in spite of our most stringent quarantine regulations, figures and dry facts would creep in. In consequence, while there are chapters that even we are willing to admit are not wholly without interest, there are others that read in places with the jocund sprightliness of an abstract of title. We would like to mark these arid spots with danger signals, but our skeptical publisher fears we might get them in the wrong place, and comfortably assures us that the reader will find them soon enough as it is.

Finally, if we should be accused of putting more emphasis upon the picturesque than upon the ponderous, of spending more time with Padre Garces and the young man who dropped his sweetheart into the muddy waters of an irrigation ditch than with him who sits in the seat of the mighty, we can only say that we never intended writing a Who's Who. We'd lots rather be accused of writing Who's Interesting—and vital.

It would probably be suspected, even if we didn't mention it, that another pen than ours had a prominent part in writing the chapter on Arizona Plant Life. Personally, our relations with trees and flowers are entirely friendly. We can tell a pine from an oak at a glance, know the bank where the Wild Thyme runs her overdraft, and have watched beds of poppies metamorphose dull brown earth to a cloth of gold for many springs: but when it comes to introducing the public to the plants of the State, not only by their nicknames. like "Johnny Jump-ups" or "Owls' Clover," but also occasionally dropping such awful noms de flora as Baccharis sarathroides, just to show one's familiarity with the language of the horticultural Horace, we know it is time for us to call for help. Now, we believe that when one is looking for a dentist or a photographer to operate on him, the best is none too good. We also believe that when one has found one that can keep him from looking like either Mutt or Jeff—or can fill an aching void with concentrated comfort—he has discovered a blessing straight from the gods. That is the way we felt when Professor Thornber said he would help us out.

If John J. Thornber, A. M., needed an introduction to nature lovers of our section of out-of-doors, we would simply say that he is the professor of botany at the University of Arizona and "the" preeminent authority on his specialty in the Southwest. As that isn't necessary, we will only mention that he is the kind of a man who likes above all things to get out into the wilds during vacation where he will sit down with his shrubs and plants and hold conversation with them as he does with his students in classroom. Do they reciprocate his affection? Do they? Why, within twenty-four hours they are telling him how the four-o'clocks managed with the advanced time; how Miss Iris Douglasiana got overheated and almost had a sunstroke; and how Old Man Cactus got his feet too wet during the last rain and had dreadful spinal rheumatism.

So you see, Gentle Reader, with an authority like this, statements mentioned in the Plant chapter have upon them a most incontrovertible seal of authority.

WILL H. ROBINSON.

CHANDLER, ARIZONA, June 30, 1918.



HOPI POTTERY MAKER
Photograph Furnished by E. L. Graves

THE STORY OF ARIZONA

CHAPTER I

HOUSE AND CANAL BUILDERS OF THE DESERT—CLIFF DWELLERS OF THE UPLANDS

HE recorded history of primitive man begins not with the written word or page, but when he fashions and leaves behind him weapons, tools and utensils of a time-resisting substance, or protects his dead by interment, so within the confines of the territory now known as Arizona the earliest people of whom we have any real knowledge are the builders of canals and adobe houses in the Salt and Gila valleys, the cave and cliff dwellers and the stone house builders of the highlands of the State, and while their history is of necessity largely veiled from the investigator, still by study the ethnologist has learned much concerning their habits, and finally has been able to make shrewd conjectures as to what ultimately became of them.

In spite of the extravagant theories of imaginative romancers who would have us believe that these folk possessed a culture comparable to that of Nineveh or Philae, we must keep in mind that they were Indians, and although they attained a civilization that was far above that of the savage tribes surrounding them, yet theirs were the limited lives necessitated by an existence in an age of stone.

Nearly all of these ancient people were farmers. In the lower Salt and Gila River valleys, on account of the aridity of the climate, they raised their crops by irrigation. According to surveys made by Herbert R. Patrick, James C. Goodwin and others, they constructed in the Salt River Valley 150 miles of main irrigating canals (in one place through solid rock), besides the necessary lateral ditches. These canals received their water from Salt River, which was raised to the required height by dams, doubtless built of brush and rock somewhat like those constructed by the early white settlers in the same region.

All canals and their laterals, it must be remembered, were dug by hand without the aid of either horses or metal implements. Stone hoes and wooden shovels made of the trunks of ironwood trees were perhaps the tools most employed, and the dirt was carried away in baskets, probably by the women.

Irrigating thus, these ancient people raised corn, beans, cotton and squash, also, probably, different native grasses, not as we would for stock, but for the edible seeds, which still form part of the Indian's diet. The growth of cacti, too, may have been stimulated by the application of water, for

many varieties of fruit from this thorny plant were highly prized by the aborigines. Nor must the possibilities of the mesquite bean and the squawberry as articles of diet be forgotten, and the trees and bushes which produce them were left on the farms to bear valuable crops for the husbandman.

Fields were cultivated by these primitive farmers and crops planted with the aid of sharpened sticks fashioned, as were the shovels, with the stone ax, assisted perhaps with fire. In addition to the more temporal dwellings made of reeds and brush with thatched roofs which housed some of the farmers on or near their own fields, they had towns that could almost be called cities, composed of substantial adobe houses exceedingly well built and often rising in pyramidal form to three or four stories in height. While many of them may have been used as communal dwellings or tenements, some were doubtless designed as storehouses for grain and various supplies and others were used as citadels or dedicated to devotional or civic purposes, as there is abundant evidence that religious and administrative activities occupied no inconsiderable portion of their time.

In 1887, Frank Hamilton Cushing, a member of the Hemenway-Southwestern archaeological expedition, explored the ruins of a community of these early people, which lie five miles west of the present town of Chandler. Here he found the remains of a veritable city, which he called "El Pueblo de los Muertos"—"The City of the Dead"—in the center of which he uncovered many large

communal houses and beyond them found the remains of more sparsely settled suburbs extending for the distance of two miles.

The largest of these houses had even greater dimensions than the famous Casa Grande, and must have, for its time, made a most imposing appearance. It was surrounded by smaller edifices, and the entire group was enclosed by an adobe wall, which, it is evident, was built as protection against marauding enemies as well as to insure privacy to its occupants.

As further evidence that these people lived in constant danger from surrounding savage tribes, to whom pillage was one of the natural occupations of life, it may be noted that while there were windows and portholes in the outer walls of their houses, there were no doors. The dwellers and peaceable visitors entered and made their exit by means of ladders against the outer wall and trap doors in the roofs leading to the rooms within, which is the procedure in many of the modern pueblos.

The walls of the houses were made of adobe, and built not of sun-dried brick, but by piling on more and more clay until the top was reached. It was always seen to that the wall of the house was of sufficient thickness to insure at the same time protection against hostile tribes as well as the fierce summer heat of the desert. In the better finished houses the clay surface of the inner walls was rubbed by hand until it attained a high polish.

The rafters between the stories were made of

small tree trunks upon which was laid a layer of reeds, which in turn was covered with a coating of cement-like clay.

In the yards or streets of El Pueblo de los Muertos, Mr. Cushing found public ovens and large cooking pits lined with clay or natural cement. The largest of these pits was fifteen feet across and seven feet deep.

Within the houses were found the remains of many dishes and utensils of a pottery not unlike that fashioned by some of the modern Indians; also, there were stones for grinding corn, stone axes, hammers and hoes, cotton cloth, skindressing implements, bone awls, and a score of other articles of the chase and of war and of domestic and religious usage, including various little images, some not over an inch long, carved from stone—fetishes and what not.

All this, you see, is of the Stone Age, these people knowing nothing of the refining or smelting of ores. It is true that a roughly fashioned cutting instrument of copper was found by Frank Cushing in a small cave near Tempe, but it was doubtless smelted accidentally from a piece of ore that happened to line a cooking pit. Also, in a ruin west of Phoenix, William Lossing discovered three little copper bells, like sleigh bells, with pebbles inside to serve as clappers. Their appearance shows them to be of unquestioned Mayan manufacture. One of them, now owned by Dr. E. H. Parker, of Los Angeles, is of beautiful design and fashioned out of fine copper wire coiled into shape and fused into one solid piece.

In the corners of certain rooms at El Pueblo de los Muertos what were taken to be remains of persons of importance were found buried in vaults. Others of their dead were first incinerated, and the remaining ash and charred bones were interred in urns made of pottery with inverted saucer-like lids.

Two of the skeletons found in Los Muertos were nearly six feet in length. Most of them, however, were short in stature.

In 1694, Father Eusebio Francisco Kino, a Jesuit friar, visited the now famous ruin called "Casa Grande"—Big House—which lies about twelve miles from the present city of Florence and about three miles from the Gila River, and said mass there. Lieut. Juan Mateo Mange, who accompanied the friar on a second visit, describes the principal ruin as but little more extensive than it is today, though at least one of the surrounding buildings, now nearly obliterated, then had not only walls but remains of ceiling beams as well.

The number of these aboriginal people who lived in the Salt and Gila valleys at any one time is largely a matter of conjecture. The 150 miles or more of irrigating canals which comprise the Salt River Valley system could have irrigated approximately 240,000 acres of land, which would have been sufficient for the support of a hundred thousand people. Besides this there were canals on the Gila which could have provided sustenance for the support of a hundred thousand more. However, it is unlikely that all these canals were

in use at any one time or that all of the fields under them were continually tilled.

The courses of the Salt and Gila rivers are, to some degree, ever changing. A spring flood might so cut the channel of the river at the intake of the canal that it may have taken a year or more to repair it, or it may have led to the abandonment of the canal in favor of a better location. Continuous cultivation in one spot might partially exhaust the soil, or in low lands alkali might rise to the surface.

Also, we do not know that all of the various centers of population, large and small, were occupied at the same time. Scientists like Bandelier and Mendeliff remind us that the modern Pueblan Indians frequently move an entire village. Speaking of the New Mexican Indians, in his "Final Report," Bandelier says, "With the exception of Acoma, there is not a single pueblo standing where it was at the time of Coronado;" and we read in Mendeliff's "Aboriginal Remains," "A band of 500 village-building Indians may leave the ruins of fifty villages in the course of a single century."

Still we must remember that the Hopi villages, except for the destruction of Awatabe, were pretty much in their present location at the time of Coronado, and that like them and Acoma, the larger aboriginal cities of the Salt and Gila countries, as things temporal go, were reasonably permanent.

At Casa Grande the excavations made by Dr. J. W. Fewkes showed that in some cases com-

munal houses were built upon the ruins of one or two earlier buildings. In its present form Casa Grande has been known since the seventeenth century. For how many centuries previously was the house as we now see it occupied? For how many centuries more were the earlier houses used?

One may easily be pardoned for believing that it would take considerable of an upheaval to induce the inhabitants of either Casa Grande or the Pueblo de los Muertos to abandon it.

So to go back to our original theme, even if the smaller villages could change their locations from time to time, and there might always be idle land under some of the canals, the total population of Casa Grande, El Pueblo de los Muertos, Casa Blanca, Snake Town, the Mesa Ruin, the Cross Cut Ruin and others that we have not even space to mention—these people who tilled the desert acres, who worshiped their gods in the sanctuaries, who danced on the hard earth of their plazas so many years ago—might easily have reached a very considerable number.

Cliff dwellings are found in all that portion of Arizona lying east of a longitudinal line bisecting Prescott and north of the latitude of Phoenix; occasionally, too, they are found in other parts of the State.

They are especially numerous along the upper reaches of the Gila and Salt, in the walls of the Canyon de Chelly, in and about Navajo Mountain, and other places where friable cliffs with natural recesses could be enlarged and chambers added to the original niches. The perfected cliff dwelling consisted of a house of masonry built within these caves.

The simplest of the habitations might consist of but one small room, with the original rock forming all the sides but the front, while the more elaborate would be veritable castles—communal houses, perhaps five stories in height, and containing as many as 140 rooms.

These various eyries occur at all levels, some only a few feet from the base of the cliff, others several hundred feet up its face, access to which could be had only by means of rude stairways cut in the rocks or by means of ladders, some of which are still in existence—well made with rounds tied to the two poles with stout pieces of bark.

In the better class of buildings the workmanship is excellent. The stones from which the walls were made, while rarely dressed, were carefully selected and skillfully laid in mortar, with both outside and inside surfaces regular and even. The walls were often plastered on the inside and occasionally on the outside as well. Sometimes the inner surfaces were covered with clay paint. All of the plastering was done by hand, and frequently the original finger prints can easily be discerned.

One of the best known cliff dwellings in Arizona is the one styled "Montezuma's Castle." This ancient communal dwelling, five stories in height and containing many rooms, is built in a large recess in the face of a precipitous limestone cliff facing Beaver Creek, a tributary of the Verde.

The bottom of the building is forty feet above

the base of the cliff, and the natural rock which overhangs it gives admirable protection from wearing storms. Thus preserved from the elements and inaccessible to visitors save by means of ladders, it is in comparatively good repair and presents a sharp contrast to the buried communal houses of the desert.

Ladders were also used as means of passage from floor to floor, and, as is the case in all aboriginal dwellings, the doorways are small; this is for excellent reasons. In the winter a small door admits less cold air than a large one and is more easily covered by a skin curtain or a stone. Also, it must be remembered, that the aborigine was ever more or less at war with his neighbor. If a friend, upon entering the house, must of necessity bow his head, it may be ascribed to courtesy; if an enemy is forced to assume the same posture in making his entry, he is in an admirable position for you to crack him over the head with your stone ax.

In addition to those in Arizona, cliff dwellings in large numbers, many of them most interesting and elaborate, have been found in New Mexico and Southern Colorado and Utah, and from them altogether have been taken such a variety of articles that we have even a better conception of their inhabitants, perhaps, than in the case of the desert canal builder.

Many of the articles, especially stone implements, were similar to those found in the Pueblo de los Muertos. Special mention, however, should

be made of some of the highland pottery, beautiful in color and design, and with a glaze that has never been equalled by the modern Indian. A curious feather cloth has been found, in addition to different cotton weaves; also, fiber mats and sandals, as well as bone awls, beads and the like. From the cliffs we learn that the leaves of the mescal were used as an article of food as well as the usual squash, corn and beans.

Dessicated bodies, or mummies, in good state of preservation have been exhumed from carefully sealed tombs. The bodies had first been wrapped in cotton cloth of fine texture, then in a piece of coarser cotton cloth or feather cloth, and finally all enclosed in matting tied with a cord made of the fiber of cedar bark.

The cliff dwellers, though to a less extent than the canal builders of the desert, also were farmers. Leading from "Montezuma's Well," a small, curious basin of very deep water, ten miles north of Montezuma's Castle, an ancient canal of these people can easily be followed. The water was and is strongly impregnated with lime and made a coating of natural cement which remains to mark the sides and bottom of this waterway of an all-but-forgotten day.

In considering these people it must be remembered that not all of the tribesmen of the cliff dwellers lived in cliffs. In the famous ruins in the Rito de los Frijoles (Bean Canyon) in New Mexico, the ancient city of Ty-u-on-yi, all the part of one tremendous communal dwelling, resting on

the canyon floor, according to Bandolier, was occupied by a portion of the same people who at the same time were dwelling in the cliffs of the Rito's sides. There was also a type of small stone house that was built on the New Mexican plateau whose antiquity is supposed to antedate the cliff dwellings. The larger communal house of the New Mexican plateau came later. Stone houses in Arizona, like the one whose ruins now stands on the brink of Montezuma's Well, were doubtless built and occupied by the cliff dwellers.

As a little sidelight on the manners of these people, it is interesting to note that near many of the cliff dwellings, as well as in different places near the old desert habitations, aboriginal artists have carved smooth surfaces of the cliffs and large boulders with a variety of drawings, pricked into the surface of the rock by means of stone implements.

Some of these, like the pictographs which adorn the cliff above Apache Springs on the south side of the Superstition Mountains, are, for the most part, outlines of animals—mountain sheep, deer, antelope, mountain lions and the like. Clearly this was simply an open-air gallery where the artists of the tribe produced evidences of their skill for the pleasure and admiration of their fellow tribesmen.

Other drawings, like some of those found in San Tan Canyon, near the Gila, doubtless have a symbolic meaning. Here we find the conventional drawings of a deity, the sun with rays, and various geometrical designs, all of which seem to have had an esoteric significance.

There is abundant evidence that the tribes of these ancient people, as is the case with many of the modern Pueblo Indians of the Southwest, were divided into various clans, each of which had its own private ceremonies, and it is thought that some of these drawings were symbolic of their ritual.

Just who the various peoples were—the canal and the house builder of the desert, and the cave, cliff and house dweller of the highlands—is a matter of more or less conjecture. Different groups of them doubtless talked different languages and in some cases were possibly of different stock, yet all seemed to be linked together by a similar culture and a similar state of civilization.

The accepted theory is that these people came from the south, but whether their culture was the result of some connection with other advanced tribes is obscure.

The Mayan bell found by William Lossing certainly indicates that articles of trade had found their way up from the Mayan country. In the University of Arizona, Prof. Byron Cummings has a number of stones found in the Salt River Valley on which faces and other designs are etched that bear strong resemblance to Toltec work, and although the contrary has often been stated to be the case, at least one image bearing the Aztec characteristics has been found in the Salt River Valley; so it would seem well within the limits of possibili-

ties that not only did our people have knowledge of the higher cultural tribes mentioned, but also may have had their tribal blood enriched by them.

Conservative as they are, Indian blood changes steadily, if but slowly. Members of friendly tribes intermarry in the usual way. Male members of hostile tribes steal women from one another—also in the usual way. Navajos are said to have learned blanket weaving from stolen Pueblan women—their descendants inheriting the inclination and aptitude.

As has always been the case since our knowledge of man commenced, a group of humans, stimulated by new conditions of environment or changed by some new infusion of blood suddenly, in this respect or that, rises head and shoulders above its fellows, and afterwards its descendants, influenced further by environment or habit as well as heredity, add to and crystallize these traits into form, and a new people takes its place in evolution's long march upward. Thus it may have been with the tribes we are considering.

As to when they first made their appearance in Arizona the question, naturally, is a most interesting one. In speaking of the cliff dwellers, George A. Dorsey, curator of anthropology at the Field Museum, says:

". . . It must be admitted in regard to certain ruins, there is no evidence that they were not occupied several thousand years ago," while Ralph Emerson Twitchel, in his "Leading Facts of New Mexican History," writes, "Just when the occu-

pancy of the cliffs began, whether five hundred or five thousand years ago, will probably always remain a mooted question."

Persistent stories are heard of ruins found where lava has flowed over built walls or ollas, giving proof of an antiquity that reaches back to no one can say how many thousands of years. There is just one thing that keeps us from repeating here some of the most interesting of these. Prof. Byron Cummings, of the University of Arizona, who has for years been making scientific investigations of Arizona ruins, said every time he heard of a ruin that had been covered by lava he had visited it—but he had never found the lava.

Some of the writers are of the opinion that the ruins in the Salt River Valley are even older than the cliff dwellings. Frank Cushing was of the opinion that the people who built "Los Muertos" were there considerably over a thousand years ago.

That the tribes into which these people were divided lived for a long period in their various places of abode may be easily deduced from the range of antiquity shown in the condition of the different ruins. The walls of the present Casa Grande, for example, both in the upper and lower floors, were in fairly good condition centuries after other communal houses along the Salt were reduced to mounds of earth, while with the cliff dwellings, if one did not know better, an observer might fancy that Montezuma's Castle was peopled a decade ago, it is in such good repair.

No less interesting than the question of who these people were is the one, what became of them all? The old, popular theory was that at a time long ago the desert, canyon and mountain-top were all teeming with countless multitudes of people when suddenly, all in a day perhaps, some awful catastrophe, some dire cataclysm occurred, and to the last man, woman and child they were wiped from the face of the earth! Dramatic, truly; only it can scarcely be so.

As to just what did happen, while there was no aboriginal Gibbon to write in graphic sentences of their decline and exit, let us see if by keeping in mind all we know we can not place a picture before our eyes that will not be wholly remote from the truth.

To begin with, let us turn our mental calendars back to the time when the Moors ruled Spain and Pepin was King of the Franks, and conjure a vision of the irrigated farms and communal dwellings of the desert people of the Salt River Valley.

It is late summer, and in a field our aboriginal farmer, clad only in sandals and breech clout (additional clothing is for a cooler season), gathers his rather runty ears of corn and big pods of beans. Working with him is his broad-backed spouse, wearing possibly a kilt of antelope skin, with a cotton garment of some sort covering the upper part of her body. She piles the corn and beans into her basket, and on her head carries load after load to the family granary.

On an adjoining farm, perhaps, the woman

may be kneeling at the grinding stones making meal of the blue and white kernels of corn piled beside her, putting quite as much muscle into her work as do the men near by who are dressing skins or polishing hand axes.

If we shift our point of view some eighty miles to the northeast to the Verde River we shall see, on the same day perhaps, a distant kinsman of our desert rancher, climbing by means of well built ladders up the face of a precipitous cliff a hundred feet or more, carrying a basket full of flat stones to where his waiting spouse, standing on the edge of a niche in the rock, mortars the stones in the wall that will make the front of their domi-Still on the same day, if our mental vision holds out, we can look down upon a highland village on the Mogollon plateau and see in front of a house resembling in shape the desert dwelling, but made of stone, a woman before a primitive loom weaving cotton cloth, while the men make arrow heads of pieces of obsidian, or, if we drop in later, and enter one of the ceremonial chambers, we might see some of the older members of the tribe debating matters of tribal importance or taking part with the priests in a ceremonial petition to "Those Above" for rain, or success in battle.

Years, even centuries, of such life go on; there is water for the farmer and game for the hunter. Then comes a change, and drought follows drought. Down in the desert country the corn in the granaries is almost exhausted. There comes a day when the predecessors of the savage Ute or

Apache attack the village on the Salt and carry it by storm. They kill the defenders, fire the roofs and watch the walls topple over on the bodies of their victims. What corn there is left they carry away.

Is it difficult to imagine after an experience like this that the fleeting remnant from the village thus sacked would go by night, a frightened band of fugitives, to join their kinsmen who lived in the fastnesses of the rocks? What if the tillage of the soil would be less fruitful; it was enough if the caverns in the lofty cliffs would give them sanctuary.

However, we need not imagine that all of the inhabitants of the desert ranches went at one time or that war was always the impelling force. We have already seen how such calamities as pestilence, loss of irrigation water, or deterioration of the soil might cause a community to move from one spot to another in the same region. These and similar happenings might induce a people to leave their former surroundings altogether.

Still more centuries pass and we witness the final abandonment of the cliffs. Why did they leave? Perhaps it slowly developed that the eyries were not as impregnable as first appeared. Certainly it must have been difficult to store water enough in their caves to withstand a long siege, and always there must have been auxiliary methods of defense and counter attack.

Presumably with the changes in fighting tactics it appeared that a village on a mesa top fronting a high escarpment offered as much protection and far more conveniences than a shallow recess five hundred feet up a precipitous cliff. Possibly the time came when the dwellers in these retreats felt strong enough to cope with their enemies on different terms.

Two things we may be positive about: they did not go because they had to go, and they were not annihilated. Scourged by pestilence they doubtless were, and ravaged by war, but a remnant ever remained. The cliff dwellers left their eyries because they wanted to, and moved to the table-lands because they thought the change would be an improvement on their former way of living.

Indeed, as we look at the ruins of the villages up and down the Little Colorado and throughout Tusayan, we can see that they did very considerable moving during the many years before the Spaniards came, and, also, to some extent afterwards.

Here we arrive at the answer to our problem. The people we have been considering never were exterminated. Their descendants are living today, and their relation with the ancient people is shown not only by the similarity of their building, their pottery and the patterns in their cloth, but by studying the ruins of the ancient ceremonial chambers and bits of sacerdotal paraphernalia found within them and fitting them to what we know of the modern tribes, the connection between the two is undeniable.

It is not to be expected that the stock has been kept pure all the centuries from the Pueblo de los

Muertos or Montezuma's Castle to the present, but the characteristics of the people and much of its culture has been kept intact, and the Hopi of Arizona, and the inhabitants of such pueblos as Zuni, Acoma and Cochiti in New Mexico, in all likelihood are the direct descendants of both the canal builder of the desert and the cliff dweller of the hills.

CHAPTER II

THE COMING OF THE SPANIARDS

A LTHOUGH Fray Marcos of Niza was the first white man, so far as authenticated records go, to enter the land that is now known as Arizona, there is a possibility that the distinction should belong to another, who, like De Niza, was also a member of the Order of St. Francis.

Early in 1538 the provincial of the Franciscans of New Spain sent Juan de la Asuncion and Pedro Nedal on a mission beyond the borders of New Galicia (Sinaloa), and although it has never been satisfactorily verified, it is believed by some authorities that Asuncion, at least, may have reached either the Gila or Colorado rivers near the confluence of those streams, though in summing up the matter the careful Bandolier says the evidence does not come up to the requirements of historical certainty.

The immediate events leading up to the famous journey of De Niza may be said to have had their genesis with the arrival of Alvar Nunez Cabeza de Vaca and his companions in Culiacan at the end of their perilous trip across the continent.

De Vaca, it will be remembered, was treasurer and "high constable" of the ill-starred expedition of Don Panfilo Narváez, who was authorized by the Council of the Indies to sail for the New World and conquer the country from the Rio de las Palmas to the Cape of Florida.

From its start the history of the expedition is a continuous narration of disaster. Landing on the west coast of Florida, April 14, 1528, the four hundred men that made up the company decreased in numbers with appalling inevitableness. Two hundred and forty-seven was the count, when, after losing their ships and facing starvation in a hostile country, they embarked in rude boats of their own manufacture. In a stormy voyage along the northern coast line of the Gulf of Mexico their numbers decreased to eighty, and later to four by additional disasters. These four, however, De Vaca, Alonzo del Castillo Maldonado, Andrés Dorantes and his negro slave, Estevan, a native of Morocco, have made enduring names for themselves in history.

After many attempts they succeeded in escaping from the natives who held them in semicaptivity near the coast, when they struck out boldly toward the west through what was to them an absolutely unknown wilderness, hoping that somehow they would find the settlements of New Spain.

Doubtless even with their wonderful endurance and intrepid courage they would have failed had it not been for the reputation that Castillo and De Vaca achieved as medicine men, both themselves and the Indians believing that they could cure all diseases and even raise the dead by supernatural powers.

The first of their countrymen they met was a small scouting party encountered after many months of arduous traveling through Texas (possibly New Mexico), Chihuahua and Sonora. Here, soon after they had crossed the Rio Yaqui, they came up with Capt. Diego de Alcaraz, who, with his men, was engaged in the common occupation of Spanish soldiers under the cruel Guzman, of harrowing and enslaving the natives.

April 1, 1536, eight years after they had landed in Florida, the four refugees arrived in Culiacan, where "with tears and praising God," they were received by the alcalde, Melchior Diaz.

De Vaca was the historian of the party, and although his account was in the main temperate and conservative, it made a profound sensation in New Spain, the more so as it was coupled with fabulous rumors then current in Mexico concerning a wonderful country to the north. The most persistent of these tales, started by stories of Indians and romantically embellished, concerned the seven wonderful cities of Cibola, which in the end finally proved to be seven Indian villages in the Zuni country, New Mexico. In the stories, however, these towns were larger than the City of Mexico itself, and in the center of a land so rich in gold and silver that cooking utensils were made of these precious metals.

The year before De Vaca reached civilization, Antonio de Mendoza, an able and deeply religious man, had been appointed viceroy, and upon the arrival of the refugees at the capital he entertained them royally, and determined, upon hearing their story, that for the glory of the church and emperor, he would add this country of the north to their dominion.

After consulting with Bishop Bartolomé de las Casas and Francisco Vasquez Coronado, the viceroy decided that instead of sending at the outset a large force of soldiers, he would dispatch one or two friars to spy out the land.

Friars were always good travelers, resourceful, and, where there was a chance of winning souls, wholly fearless. With their piety and tact they might easily make a better impression upon the natives of the country than the soldiers, and having no worldly interests to bias their reports, they could be believed implicitly.

At that time Marcos de Niza, a member of the Franciscan brotherhood, was holding the office of vice commissioner of New Spain and engaged, under the viceroy's orders, in instructing a large number of friendly Indians in the tenets of the church as well as teaching them the Spanish language. He was held in high esteem by his own order, and had been with Pizarro in Peru.

Impressed with the fitness of the man, the viceroy selected him to undertake this perilous excursion into the Northwest. With the friar he would send Estevan, the negroid Moor (whom Mendoza had already purchased from Andres Durantes) and a number of the Christian Indians that had been with De Vaca and who might be able to act as interpreters with part at least of the northern tribes.

Thus, without ostentation, the excursion started, Coronado accompanying it as far as Culiacan. From that point, on March 7, 1539, Fray Marcos having a companion in a Friar Onorato, the party journeyed northward.

For a while everything went most auspiciously, the natives being specially friendly, as word had been sent out that the viceroy had ordered that the Indians should not thereafter be enslaved but treated with all kindness. However, when they reached the Indian village of Petatlan, Onorato was taken ill, and Fray Marcos was obliged to go on without him.

The expedition followed the line of the coast for several leagues, but after crossing the Rio Mayo turned inland, and upon reaching the important village of Vacapa, the friar decided to remain for a time, sending Estavan ahead to make a reconnaissance.

He told the negro to go north fifty or sixty leagues, and if he made any discoveries of moment, either to return in person or to send a message and stay where he was until he should arrive.

As the negro had no knowledge of writing, the message was to be sent by a cross. One the size of a man's hand would indicate the discovery to be of small importance, while if the matter was of very great moment, indeed, one twice that size might be sent. Imagine the good friar's state of mind when, four days later, the Indians returned bearing a cross as tall as the friar himself, and with it came not alone the old story of Cibola, but

accounts of three other magnificent cities which lay beyond them, Marata, Acus and Totonteac, whose glories even outshone those of Cibola.

It may be said here that such towns really existed, much as they, or similar Indian pueblos, exist today, interesting undoubtedly, but scarcely glorious; Marata being, like Cibola, in the Zuni country, while Acus is the high-perched Acoma, and Totonteac one of a group of Hopi towns now in ruins.

Glowing as was the report that his servant sent him, the worthy Fray Marcos does not seem to have been specially stampeded, for he waited two days longer and then continued his journey, going up the beautiful Sonora Valley, of which he "took possession" in the name of the viceroy and the emperor.

The Indians he found here, whom he called the "Painted Ones," and who may have been the Pimas or Papagos, received the reverend traveler with all kindness, presenting him with quail, rabbits and pine nuts. They also told him that the people of Totonteac wore garments made of stuff like his woolen frock which they obtained from animals about the size of greyhounds.

When they reached the head of the valley the friar and his party passed over the divide and descended into the valley of the San Pedro, where a short journey brought them into what is now the border of Arizona.

All along the Rio San Pedro, Fray Marcos reported that he found a most prosperous people

who lived in villages a quarter to a half a league apart, and were well dressed and wearing many turquoises.

When he reached the mouth of the San Pedro, he crossed the Gila above the confluence of the two streams, and, while camping there, received his first word from Estavan since the message of the cross. The negro, it seemed, was having what may be described as a tour de luxe through the country, for the Indians reported that he had decked himself out with feathers about his wrists and ankles, and, like a field marshal might carry a baton, bore with him a gourd adorned with two feathers, one of red and one of white, besides a string of bells.

Certainly he had succeeded in impressing the natives with his importance, for they had given him as an escort of honor, three hundred or more men and women. He was not waiting for orders from his pious master, as he had been instructed. Quite the contrary. He was the conquering hero going through the country in state, while his barefoot, brown-gowned master might follow as he would. He left word that he was on his way to Cibola, which lay beyond the mountains.

On May 9, 1539, Fray Marcos again set out on his journey, following the path Estavan had taken, selecting only thirty men of the large number of natives who wanted to accompany him. After they had left the camp, to his great surprise, his guides soon led him into a well-beaten trail which they followed for much of their journey, and each night he found a shelter which had been prepared by members of his own party who had gone ahead.

For twelve days they journeyed through the White and Mogollon mountains, whose peaks were covered with snow, living well on the deer, rabbit and quail with which his hospitable guides provided him; then, when near the Continental divide, they were met by an Indian who had been with Estavan, and who brought the direful information that while the negro had indeed reached Cibola, instead of meeting with the cordial welcome he had hoped for, he had been slain.

At this, naturally, the friar's escort was much alarmed, but with the aid of gifts, De Niza induced them to proceed with him. The next day they came across two more of Estavan's escort who gave him the details of his servant's murder.

It seems that when Estavan had come in sight of Cibola he had sent his much adorned gourd ahead to the chiefs of the town, and doubtless remembering what prestige the claim had given De Vaca, instructed his envoys to say that he was a great medicine man.

Whether the Cibolans may have thought that Estavan's "medicine" was bad, and that he practiced an art as black as his skin, or whether, as some commentators suggest, the gourd was a symbol of a people with whom the city was at enmity, or whether it was simply the arrogance of the man, in any event the chiefs received the deputation with every indication of enmity, and throwing the gourd to the ground, told their visitors to say

to their chief that he must leave at once or "not one of them would be left alive."

However, no matter how much Estavan may have lacked in tact and obedience, he seems to have had no want of courage, for, decked with feathers and bells, he advanced confidently to the town, which was the usual pueblan community made up of adobe pyramidal houses—anything but the magnificent city of the Cibolan traditions.

When the negro reached the edge of the village, which was situated on a sharp rise of ground, the chiefs would allow neither him nor his escort to enter, but stripped the negro of his trappings and robbed him of his possessions.

The discomfited visitors spent the night outside of the walls, and in the morning, while trying to escape, the Cibolans pursued and killed not only Estavan but some of his followers.

It may be noted here that Cibola was, in all probability, Hawaikuh, one of the cities of the Zunis just across the border from Arizona in New Mexico. A tradition is still current there that a long time ago a very bad "Black Mexican" from the south visited them, and they killed him with stones and buried him under them. A variation of the tale is that the "Wise Men" of the pueblo escorted him to its edge and gave him a kick so powerful that he never struck earth again until he reached the country from whence he came.

The possibilities of what the Cibolans in their present state of mind might do to a second foreigner might well have daunted even Fray Marcos' strong heart, but instead of retreating, with gifts and brave words to encourage his escort, he went resolutely forward, determined to have a look, at least, at the city of his dreams, no matter what the cost.

When he came in sight of the pueblo he was much affected. From a distance the several stories of its perhaps two hundred dwellings did make something of an appearance, especially when an observer had an imagination strong enough to supply what vision failed to record.

With due solemnity and deliberation, though every minute must have been fraught with danger, Fray Marcos of Niza raised a mound of stones, planted a cross on it and in due form "took possession" of all the country he could see, in the name of the viceroy and the emperor.

However, when the ceremony was over, "with more fright than food," as he frankly put it, he hastily started on his return journey to New Spain.

When several months later he reached the City of Mexico and had audience with Mendosa, he had a great tale to unfold. Coronado afterwards very flatly said that the most he told was not so at all, and the little that was so was extremely highly colored, but we must remember that when the gallant captain said that he was a greatly disappointed man.

It is far more likely that the good Fray Marcos—whose excellent reputation covered many years—was simply a glorious and unreliable optimist. Much of his conversation with Arizona

Indians had doubtless been confined to signs, and he translated what they really did mean into what he wanted them to mean. Other enthusiasts have done the same thing. In any event, he spun a great yarn. The buildings were not only many stories in height and built of stone, but the walls were set with turquoises. The women wore strings of gold beads, and the men girdles of gold and white woolen dresses, and they had sheep and cows and partridges and slaughterhouses and iron forges. And as if this were not enough, he added, "They use vessels of gold and silver, for they have no other metal, whereof there is greater use and more abundant than in Peru."

It is wholly possible that de Niza did not tell the viceroy all the things that are attributed to him, but what he did tell was enough to make Mendosa immediately decide upon the conquest of the country.

Although he enjoined the greatest secrecy upon the friar, the story was too sensational to keep, and within a few days the capital was aflame with excitement. Here was a chance for such captains as Cortez, Guzman and Alvarado to conquer more worlds; here was an opportunity for the scores of young nobles lounging about the plazas of the city to gain both gold and glory.

The captains took the first ship for Spain, where they hoped to get permits for exploration from the Emperor Charles, while the young blades daily besieged Mendoza for commissions.

The viceroy was a man of quick action, and

while his rivals were still across the sea petitioning their monarch, Mendoza completed his plans. Don Francisco Vasquez de Coronado, a young Spanish nobleman, and for a short time governor of New Galicia, was to be captain general, and Pedro de Castaneda de Nacera, also of good birth, historian.

The army of conquest, which was to be of sufficient size to absolutely insure success, was mobilized at Compostella, on the Pacific Coast, and on the morning of February 23, 1540, the most splendid body of troops ever brought together in New Spain passed out of the city before the admiring eyes of Mendoza and his staff.

First came three hundred cavaliers, young men of the best blood of Spain, mounted on the pick of the horses of the country, with Coronado, clad from head to foot in a glittering coat of mail, at their head. Other cavaliers, too, wore armor, and all had their heads protected with iron helmets or vizored head-pieces of bullhide. Each carried a lance in his right hand, while a sword clattered at his belt. To add a finishing note to the magnificence of these young gallants, bright-colored blankets hung gorgeously from shoulder to ground.

The cavalry was only the first battalion, and back of them walked footmen with crossbow or arquebus, or with sword and shield, and still behind them came the light artillery with wicked-looking field pieces strapped to the backs of stout mules.

The final division of all was composed of ser-

vants and slaves leading extra horses and pack animals loaded with the belongings of the elegant young horsemen, and driving before them herds of oxen, cows and sheep. No wonder the people cheered and the viceroy was congratulated upon the country of gold that would be added to his domain.

The distance to Culiacan, their first objective, was eighty leagues, but so impeded were the movements of the army by the herds and pack animals that they did not arrive at their destination until March 28th.

The November before, Melchior Diaz, with a small escort, had been sent north on a reconnaissance to verify, if possible, de Niza's report. He had gone forward as far as the Gila River country, and upon his return had met Coronado before the captain general had arrived at Culiacan.

His reports verified many of the details Fray Marcos had given of the early part of his journey, and as he had not penetrated far enough into the country to prick the Cibola bubble, Coronado completed his energetic plans for continuing his enterprise.

At Culiacan, influenced doubtless by what Diaz had said regarding the difficulties of traveling through the land to the north, Coronado now divided his forces. The first section was to consist of seventy-five or eighty cavaliers, thirty foot soldiers and four priests, one of which would be de Niza. The second division would include the pack animals and the herds.

Two weeks were consumed in reorganizing the

forces, and at the end of that time Coronado advanced with the lighter battalion, leaving the others to follow more leisurely.

To further insure the success of the great enterprise, the viceroy meanwhile was outfitting two supply ships which ultimately sailed from Natividad on May 9th under the command of Hernando de Alarcon. These ships were joined by a third, and with great difficulties sailed up the Gulf of California, which had already been explored by Ulloa. At the mouth of the Colorado, Alarcon left the ships and with two small boats made two different trips up the river in search of some tidings from Coronado. On the second trip he went a considerable distance above the mouth of the Gila River where he erected a great cross and buried letters for Coronado, with a notice on a conspicuous tree telling where they could be found. However, they heard nothing of the expedition, and sailed for home.

In the meanwhile Coronado and his men, in spite of rough going, advanced along a route not greatly different from that taken by Fray Marcos, and on July 7th finally came in sight of Hawaikuh.

Alas for the golden stories of the friar! These soldiers of fortune, in their present state of mind, had no rosy spectacles of romance through which to view the Indian village that lay before them. Castanada said, "It looked as though it had been all crumpled up together."

When they saw the advancing company of Spaniards a number of the Indians came out of their houses to meet them. Coronado sent forward part of his cavalry and two of the priests to parley with them, but the Indians greeted their visitors with a volley of arrows. At this the Spaniards raised their battle cry of "Santiago," and charged, and the Indians, dismayed at the steel swords and the hoofs of the horses, fled back to their walls. The invaders then advanced in force up a steep pathway leading to the village, which was perched upon the mesa. As the white men came up, the Indians stood on the terraces of their pyramidal houses and hurled stones and shot arrows at them.

On came the Spaniards, with Coronado at their head. His shining armor made a conspicuous target for the missiles of the Indians, and a few minutes later he was felled to the earth. His followers quickly rallied to his aid, and soon took the place by storm, with none of their men killed and but few injured.

They immediately possessed themselves of the town, searching vainly for jewels and precious metals. But even if there proved to be no stew pots of gold, no frying pans of silver or pieces of turquoise set in the walls, there was plenty of corn and a place to rest, which after all was what they most needed.

Had they not been expecting so much, both the people and the town ought to have been full of interest for the soldiers. The Indians, culturally, were far ahead of any others they had seen since leaving Mexico. Their houses were built of stone and the people themselves were clothed in beautifully dressed skins and cotton cloth. Besides corn, they raised on their primitive farms squash and beans.

Coronado remained at Cibola, making it his headquarters for some considerable time. Shortly after his arrival he sent Don Pedro de Tovar, with an escort of cavalry, on into the Hopi country, of which he had heard much from the Cibolans.

When Tovar arrived at one of the principal Hopi towns, the inhabitants refused to allow him to enter, when Friar Juan de Padilla urged the Spaniards to attack. One charge with the horses and guns thoroughly cowed the Hopis, who thereupon sued for peace, and loaded their conquerors with pine nuts, turkeys and other food.

When the expedition returned to Cibola, Coronado took a number of semi-precious stones they had collected, and with a painted deer skin, made up a package for the viceroy, which he dispatched, together with a letter, by Juan de Gallego. With Gallego went Fray Marcos, now decidedly unpopular as well as unhappy in the camp. Melchior Diaz, who was to send forward the second division of the army, also accompanied them.

After an uneventful journey the three returning travelers found the army in a comfortable camp on the Sonora River, reaching there about the middle of September.

Soon the army went north, when Diaz, who had been left in command of the camp, which was to be made permanent, decided to try to find the supply fleet and Alarcon. With twenty-five men he traveled northwest until he reached the Colorado River, but though he found the letters Alarcon had left, the fleet had already departed. The expedition came to an abrupt end when, upon an inauspicious day, Diaz was accidentally transfixed with a lance and died. His followers immediately returned to the military camp on the Sonora River.

When Tovar had returned from the Hopi country he told Coronado that the natives had told him of a great river that lay to the northwest, whose banks were peopled with a race of giants. The captain general thereupon sent Don Garcia Lopez de Cardenas and twelve cavaliers to explore it.

At the Hopi villages Cardenas found guides, and from thence proceeded over the plateau country, which they found cold in spite of the summer season, and after several days were rewarded by seeing the Grand Canyon of the Colorado.

Coming unexpectedly upon this tremendous marvel of Nature, it is no wonder that they were filled with amazement at its magnitude and majestic beauty. For several days they explored the rim, trying vainly to find a trail leading to the river, which to them looked like a silver thread, and which the Indians insisted was half a league wide. Three of the most active of the men did make one effort to climb down the sides, but hours after returned to say that they had attempted the impossible, for "rocks which from the tops had appeared to be no taller than a man, were found upon reaching them to be taller than the tower of the cathedral at Seville."

The discovery of the Grand Canyon of the Colorado practically ended the explorations of Coronado in Arizona.

After the return of Cardenas, the captain general marched eastward into New Mexico, where the record of his explorations was sadly marred by the bad faith and cruelty shown by the Spaniards to the Indians.

Ever lured on by the will-of-the-wisp stories of gold told them by the Indians, who soon discovered the white man's madness for the yellow metal, they journeyed into Texas, Oklahoma and even Kansas, where their farthermost point seems to have been reached somewhere beyond the Arkansas River.

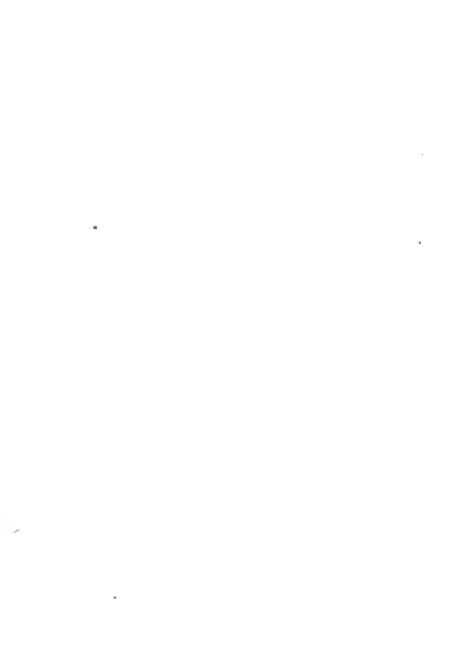
Finally, following many disasters, two years from the time they had started so auspiciously from Compostella, Coronado led his army back to Mexico. With the ranks of his army depleted by death, his men dressed in tattered skins of animals. worn by hardships and privations, their leader entered the capital of New Spain, "very sad and very weary, completely worn out and shamefaced," feeling that he was held responsible not only for their failure to find gold, but also for the fate of those who had died on the inhospitable deserts of the north. Nevertheless, though the viceroy received him with coldness, and though his name is tarnished with the treatment his men showed the natives, yet by reason of his splendid courage and dogged persistence in continuing his explorations in the face of constant perils. Coronado and such captains as Melchior Diaz have won for themselves enduring and justly earned fame.

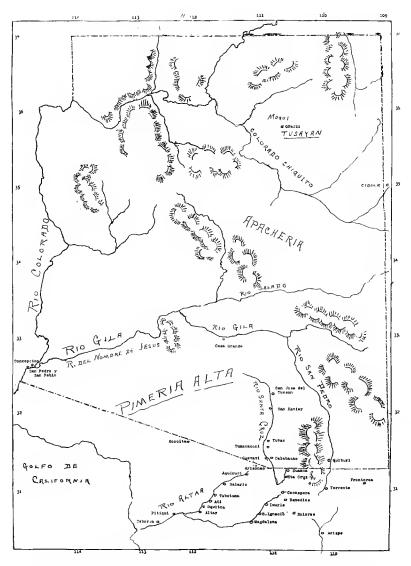
The inability of Coronado to find any trace of gold in the country to the north effectively ended all efforts at exploration in that direction until in 1582 (forty years after Coronado's return), when Antonio de Espejo led a small expedition into New Mexico with the double purpose of looking for two missing Franciscans and searching for precious minerals. They made one trip into what is now Arizona, Espejo with nine followers going west to the Hopi villages and afterwards prospecting for metals in a section that probably included Yavapai County.

In 1598 Don Juan de Onate organized a large expedition, consisting of 400 men, 130 of which were accompanied by their families, 10 Franciscan friars, 83 wagons and 7,000 head of cattle, with a view of permanently colonizing the fertile country along the upper Rio Grande. Like Espejo, he made one exploring trip into Arizona, where, after visiting the Hopi and other Indian villages, he did some fruitless searching for minerals. At a later time Onate went as far west as the Colorado River down which he journeyed to its mouth.

The battles with the Indians of this really remarkable commander, his troubles with members of his army, his success in establishing colonies, belong to the annals of New Mexico rather than to those of Arizona, still it should be mentioned that Onate's expedition marked the beginning of the

settlement of New Mexico by the Spaniards, and with the exception of a brief period following the revolt of the natives in 1680, its occupation by the white race was thereafter continuous.





SPANISH MISSIONS IN ARIZONA AND NORTHERN SONORA

CHAPTER III

SPANISH MISSION DAYS

PANISH mission activities among the Indians of Arizona began early in the seventeenth century when friars from the colonies on the Rio Grande first visited and later took residence among the Hopis in the pueblos east of the Painted Desert. However, at the time of the New Mexican Revolt in 1680, four Franciscans, who were ministering in five of the towns of Tusayan, were killed by their parishioners and thereafter all through the Spanish rule the Hopis refused to have anything to do with the white man's religion.

Among the Indians to the south the Spaniards were much more successful. The work here began with the arrival of the Jesuits in 1690. The padres of this order continued in charge of the field for seventy-seven years, when, in 1767, they were succeeded by the Franciscans, who for sixty years more, like their predecessors, labored diligently and unselfishly for the salvation of their charges, until, in 1827, Mexico becoming independent of Spain, the Franciscans were banished from the country.

The southern missionary field covered all of what was then known as Pimeria Alta, which, roughly, was bounded on the north by the Gila and on the east by the San Pedro. On the south it ran well into Sonora, and on the west extended to the Rio Colorado and the Gulf of California. Although both Jesuits and Franciscans in this district tried to reach the northern tribes, their efforts were barren of success. Even in Pimeria Alta north of the present Mexican line but two missions of any permanency were established by the Jesuits and but two more were added by the Franciscans.

The first and greatest of the Jesuit missionaries was Father Eucebio Kino. He was a native of Trent in the Austrian Tyrol, and believing that he owed his recovery from a serious illness to the intercession of St. Francis Xavier, resigned a professorship at the College of Ingolstadt in Bavaria to devote his life to the salvation of the Indians in the New World.

In February, 1687, we find him near the present town of Ures in Sonora, where he founded his first mission, Nuestra Senora de los Dolores, which place he made his headquarters up to the time of his death, and from which he made his many missionary journeys to Arizona.

In December, 1690, Father Juan Maria de Salvatierra, superior and visitador, came to Dolores, and as he and Father Kino were inspecting the different missions and visitas which the latter had established in the district, they were met at Tucubabai on the Rio Altar by a delegation of Sobaipuris Indians. These natives had journeyed southward from about the locality of San Xavier to ask if missionaries could not be sent to their own country.

Gladly acceding to their request, shortly afterwards the two Jesuits journeyed northward, crossing the border at or near the Santa Cruz River, being the first white men to enter what is now Arizona from the south since Coronado's visit one hundred and fifty years before.

Salvatierra immediately returned to Mexico, leaving Kino, who remained a little while longer, investigating the possibilities of the country as a missionary field.

Although he had little encouragement from the superiors of his order, Father Kino took a great interest in the Papagos, Pimas and other friendly tribes of Indians living in that part of Pimeria Alta, now known as Arizona, and during the remaining sixteen years of his administration of missionary affairs from Dolores, made no less than fourteen journeys through different parts of that country.

At this time the most northerly of the precidios or garrisons of the Spaniards was at Fronteras, situated near the San Pedro River, in northern Sonora. From this presidio there operated a flying squadron whose purpose it was to defend the missions and missionaries from hostile Indians, particularly the Apaches, who about a half century before first appeared in Arizona, coming from the north, and from the time of their arrival gave evidences of the predatory and murderous characteristics which later turned Arizona into a veritable charnel house.

However, in spite of manifold dangers, some-

times guarded by an escort of soldiers, sometimes only accompanied by a companion friar or Indian guides, and often traveling alone, Father Kino journeyed up and down the Santa Cruz, the San Pedro and Gila rivers, preaching and ministering to Papagos, Pimas, Sobas, Coco-Maricopas and Yumas who lived in that district. The good father must have possessed a wonderful personality and adaptability as well as great courage, for nearly everywhere the Indians seem to have received him gladly, listened to his teachings and given him their children to be baptized.

Knowing of the missions farther to the south, the natives were anxious to have like communities established in their own country, and although Father Kino's greatest desire was to see this accomplished, he was unable to get the support to carry out the plan. Nevertheless, at many of the villages the natives built little adobe churches where Father Kino and his few associates might hold mass on their all too infrequent visits.

The padres, besides ministering to their charges spiritually, also looked after their temporal well being. These people were semi-agricultural, living in villages and having little fields of maize, beans, squash and cotton. The padres gave them seeds of new varieties of grain and vegetables, and even helped them make a start raising horses, sheep and cattle. The success thus gained may be gathered by a letter written by Father Kino himself:

"The greater the means, the greater our obliga-

tion to seek the salvation of so many souls in the very fertile lands and valleys of these new conquests and conversions. There are already rich and abundant fields, plantings and crops of wheat, maize, frijoles, chickpeas, beans, lentils . . . in them vineyards, . . . reed brakes of sweet cane for syrup and panoche. . . . There are many fruit trees, as figs, quinces, oranges, . . . with all sorts of garden stuff, . . . garlic, lettuce, . . . Castilian roses, white lilies."

Mining in Arizona, too, had its first slight beginning in early Jesuit times, for our diligent and practical father mentions more than once veins of minerals which he had seen in various parts of the country.

In 1694, acting on information he received from the Indians, our Padre Kino visited the since famous pre-historic ruins on the Gila, now known as the Casa Grande, being doubtless the first white man to see them. It is also interesting to note that, although the present church building at the mission of San Xavier del Bac was not commenced until many years afterwards, it is recorded that in 1701 Father Kino laid the foundation for a large church at that place.

In 1710, at the age of seventy, while still actively engaged in this work, this intrepid old soldier of the cross passed to his reward. It is told that during his mission work he baptized no less than forty-eight thousand Indians. Of him Calvijero says: "In all of his journeys he carried no other food than roasted corn; he never omitted to cele-

brate Holy Mass and never slept on a mattress. As he wandered about he prayed incessantly or sang hymns or songs. He died as saintly as he lived."

At the time of Father Kino's death the only permanent mission existing in what is now Arizona was at Guevavi, and what with the hostility of the Apaches and the weakness of the garrisons, the padres were unable to do missionary work north of that place for the next twenty years. Indeed, it is quite likely that no Spaniards whatever entered the district unless it was an occasional expedition of the soldiers from Fronteras. By 1732, however, conditions had so changed that the Jesuits were able to make San Xavier del Bac a permanent mission, placing Father Felipe Segesser in charge, while Juan Bautista Grasshoffer was made the resident priest at Guevavi. From that time on there were gathered at these two places Indian neophytes who received spiritual instruction from the padres and labored under their direction.

As we know, the Spaniards were ever in search of the precious metals. An attempt, at least, at mining in Pimeria Alta was made early in 1726, and ten years later, at Arizonac, southwest of Guevavi and just south of the Arizona line, the famous Planchas de Plata were discovered. Here great plates or balls of native silver were found; one immense lump, it is said, weighed nearly three thousand pounds. In fact, the mine was so rich that when the fame of the strike reached Spain the king promptly appropriated it for himself.

In the meantime affairs at the missions, both in Arizona and Sonora, were going in a way not at all idealistic. The Pima and Papago Indians, from which tribes were gathered most of the neophytes, although comparatively tractable and peace-loving, were wholly unused to discipline and the white man's standard of labor. The zealous fathers seemed to have pushed them rather far, for on November 21, 1751, through the entire district of Pimeria Alta, the Pimas and Papagos joined the Ceres in a bloody revolt. The two priests in charge of San Xavier and Guevavi fled to Suamca in Sonora, which was protected by a nearby presidio. Two other of the padres were killed at their missions in Sonora, as were about a hundred other Spaniards. Smelting furnaces that had been erected were destroyed by the Indians, and mine shafts filled in wherever found.

By some means, within the next two years, priests and parishioners were reconciled; possibly the presidio, or garrison, which was established at Tubac in the Santa Cruz Valley, 1752, may have been a potent influence to that end. In any event the friars returned to Guevavi and San Xavier, and in 1754 established an important visita at Tumacacori, conveniently near the soldiers of the new garrison.

We now read of Spanish colonists beginning to come up from the south, and see mentioned the name of Tucson, which is spoken of as an Indian village the fathers visited from San Xavier.

The friars seemed to have attained some success in regaining the confidence of their charges

when suddenly, in 1767, King Charles III expelled all of the Jesuits from his kingdom. Several reasons are given for this act: that it was the influence of the Freemasons in the Spanish court; that the Pima uprising showed incompetency on the part of the fathers in charge; that the enemies of the order had showed the king a forged letter purporting to be from the Jesuit superior general and containing allegations that seriously affected the monarch's title to the crown. In any event a devoted and zealous body of earnest workers who, whatever mistakes they may have made, labored unselfishly in the face of grave dangers, were abruptly discharged with no thanks from the country whose frontier they had tried so hard to civilize. The church records show that altogether there were nineteen of the order who worked in this field.

Immediately upon their removal the mission property was turned over to the royal comisario, and the Marquis de Croix, then viceroy of Mexico, sent an urgent appeal to the Franciscan college at Queretero, Mexico, asking for at least twelve priests of that order.

In response to this request fourteen Franciscans were sent to Sonora and there assigned to the different missions throughout the district. The church property was formally turned over to the order, and each friar was allowed by the crown the meager stipend of \$300 a year towards defraying the expenses of his work.

A year had elapsed since the Jesuits had gone,

and the two missions in Arizona, Guevavi and San Xavier, were in a deplorable condition. Not only had the property been sadly neglected by the civil custodians, but also the year of freedom from restraint enjoyed by the neophytes made the discipline imposed upon them seem very irksome. Gradually, however, some of the Indians returned; some, who were wholly under the care of the padres, were furnished food and clothing for themselves and families; others simply worked for pay by the day.

Of all of the Franciscans in Pimeria by far the most conspicuous figure was Father Francisco Garces, who was assigned to San Xavier with the Indian village of Tucson as a visita. He was a younger man on entering his work than Father Kino, but no one could have been more zealous in his labors, more unmindful of the dangers of a hostile frontier, or more undaunted by the poverty of the missions. His faith and courage lifted him to a plane where failure could not reach him.

So great were his zeal and piety that it was felt even by the Indians, who venerated him as an oracle and a holy man. However, he could be as stern with those who were hostile to his teachings as he was patient and kindly to those who listened.

As an object lesson, he had a servant carry before him a large banner, which on one side portrayed the likeness of the Virgin Mary, and on the other a picture of a lost soul, writhing in the flames of hell. If, on visiting a new community, the natives were hospitable, he turned to them the picture of the mother of Jesus; if unfriendly, the lost soul was exhibited as a warning of their own inevitable fate.

The first missionary journey of Father Garces was made to the Gila country within a few months of his arrival at San Xavier. The young padre kept a very complete diary, and what he tells of the various tribes is full of interest. The Pimas and Coco-Maricopas lived in much the same country they do now, and Father Garces was especially impressed with the amount of cotton they grew, which they wove into blankets for both their men and women. The men also wore a cotton breechcloth, while the women clad themselves in a short skirt made of the same material.

While the Pimas, Papagos and Coco-Maricopas treated the priests with uniform kindness, the Apaches continued to be a perpetual menace, raiding the missions whenever the opportunity offered and ready at all times for both thievery and murder.

Early in his ministry Father Garces became ill, and Fray Gil, who was in charge of Guevavi, came to assist him. In Gil's absence, the Apaches sacked Guevavi, damaged the mission building and killed all but two of the little band of soldiers that was guarding it.

Later the same year the Apaches attacked San Xavier, destroying the mission buildings, but under Garces' direction it was quickly repaired.

In spite of continuous obstacles and dangers, the mission showed steady improvement. In 1772

there was at San Xavier a fairly capacious adobe church building with, including men, women and children, two hundred parishioners. They had cultivated fields and cared for considerable live stock. At the visita of San Jose del Tucson there were about two hundred people, but no place of worship, so some time during the year the zealous Fray Francisco Garces built at the foot of a hill, called "El Cerro del Tucson," a stone church, a mission house with a wall of adobe around it, as a protection against the Apaches. The pueblo stood about half a mile west of the present city of Tucson.

At this time Guevavi had eighty-six people, the Indians there doing a little farming. Tumacacori had a population of ninety-three, but though there were both church and priest house, there was no minister in charge. There was also a small unfinished church at San Ignacio, just east of Guevavi. Calabasas, in the same district, was a visita with sixty-four people but no church. Add to this a little military post at Tubac, with less than fifty soldiers, and we have practically all of the mission communities of Arizona.

As early as Father Kino's time it had been the ambition of both the padre and the military authorities to establish an overland route between the missions of Pimeria Alta and those of California. Finally, to this end, in 1774, Captain Juan Bautista de Anza, comandante of the presidio at Tubac, undertook the establishment of a trail. On January 8th he left Tubac with thirty-four soldiers,

going by the way of Caborca on the River Altar, then northwest to the junction of the Gila and Colorado, and then, after a difficult march across the desert, on to San Gabriel, near Los Angeles. On this expedition the church was represented by Padres Garces and Juan Diaz, both of whom were interested in the Yuma and other Indian tribes living on the Colorado, and among whom there had been much talk of establishing a mission.

In September, 1775, De Anza led a second party into California, starting from Horcasitas, and going through San Xavier down the Gila. This expedition journeyed as far as the Golden Gate in California, where they founded a settlement, which in time became San Francisco.

Early in the year of 1776, while Adams, Hancock and their associates on the Atlantic Coast were occupied with events leading up to a famous Declaration of Independence concerning one King George, Father Garces, with his banner borne before him, thinking of very different matters indeed, was journeying northward up the west bank of the Colorado River into unknown country, hoping to reach the Hopis, to whom he was especially anxious to preach the gospel. He encountered the Mohave and Chemehuevi Indians, probably near the present town of Parker, who received him cordially. After making a casual side trip of a hundred miles or so to south central California, he returned to Arizona and journeved trails heretofore untrodden by white men into central Arizona. Somewhere near Prescott he met the Yavapai tribe, and induced five of them to act as his guides to Hopi land.

En route to the pueblos they visited the Havasu Indians, who lived then as they do now, down in the depths of the picturesque and beautiful Cataract Canyon, and marveled much over the charm of the spot.

When he reached Oraibe, the cliff city of the Hopis, he found the natives still most antagonistic to the religion of the Spaniards. While offering the sorely disappointed Father Garces no violence, they would neither receive the simple gifts he had brought them, nor allow him to remain. They had no objection to the friar as a man, and permitted him to take his burros to the sheep corral and wander through the town, which he did with much curiosity, recording what he did and saw most minutely in his diary.

The people gave every evidence not only of superior intelligence, but of considerable material prosperity. The houses, he said, were of more than one story in height, with doors closed by bolts and keys of wood.

They had sheep, which, of course, came from the Spanish settlements on the Rio Grande, and Father Garces notes with interest that the ewes were larger than those of Sonora. Also, he said, they raised chickens, had gardens in which grew all of the common vegetables, and besides that, little orchards of peach trees. Their clothing was both picturesque and well made, the women wearing woolen smocks made of blanketing, sleeveless and reaching to the heels. Over this was worn a second smock of black or white with a girdle of various colors. Some of the men wore leathern jackets fitted with sleeves, and they completed their apparel with trousers and moccasins.

That night, evidently believing that the friar's presence would make "bad medicine," the Pueblans would not allow Father Garces to enter their houses, so, forced to sleep in the street, he writes that his rest was disturbed by the harangues of different local orators and the playing of a flute.

After remaining at the Hopi villages for three days, he was told definitely that it was time for him to depart. With crucifix raised before him, he made a final appeal, but the Indians would have nothing of his teaching, and gently but firmly escorted him to the edge of the town.

Sadly disheartened by his failure, he returned to the Colorado River, journeying southward through the land of the Mojaves, and then eastward, again visiting the Coco-Maricopas and Pimas.

He reached San Xavier September 17th, after a journey of over twenty-five hundred miles, in the course of which he visited nine tribes and met some twenty-five thousand Indians.

Since the establishment of the church at the "Pueblito del Tucson" four years earlier, this settlement seems to have steadily grown in importance. Spanish settlers came there and the same year that Father Garces made his long journey to the Hopi country military quarters were erected

there, and the soldiers moved north from Tubac to occupy them. About this time the settlement seems to have taken unto itself a new patron saint, for hereafter, instead of being known as San Jose del Tucson, it was called San Agustin del Pueblito del Tucson. Fancy a Southern Pacific brakeman announcing such a name to a car of passengers!

Naturally the settlers at Tubac made a vigorous protest against the abandonment of their military post, but they seem to have received scant satisfaction from the authorities, who not only did not return the soldiers, but insisted that certain settlers who wished to leave for Mexico must stay where they were.

The Franciscans were ever desirous of reaching farther into the frontier with their missions, and the crown administrators appreciated thoroughly that no other pioneers could, at so little cost to the State, so successfully enlarge their country's borders. So it was that when Padre Garces and accompanying friars had, with Captain de Anza, visited the rich delta country of the Colorado where the Yuma Indians had their productive fields, both the representatives of the church and the military had been impressed with the thought that this would make an ideal spot for a new religious center.

However, both Captain de Anza and Father Garces were of the opinion that it would be dangerous to establish a mission unless it could be strongly guarded by soldiers, for while the Yumas were agricultural, they were far more warlike than either the Pimas or Papagos, and the uprising of 1751 had not been forgotten. The powers higher up finally gave orders for the establishment of such a mission, but there were many things that made for delays, and it was not until early in 1779 that Father Garces and Father Juan Diaz were given orders to hold themselves in readiness to proceed to the country of the Yumas as soon as the necessary military force and supplies could be obtained. Then came more waiting when, finally, an army of twelve privates and a sergeant were furnished as the military equipment of the perilous undertaking and the intrepid dozen and one, together with the two priests, made the journey to the Colorado.

The executive head of the Indians at that time was one Chief Palma, a dignitary of no mean station, for he had not only received a military decoration from Captain de Anza, but had been to the City of Mexico and been baptized in the cathedral.

The loaves and fishes of the religion of the Spaniards had been very attractive to this Indian warrior. Coincident with the establishment of the proposed mission, Palma had been promised an unlimited amount of smoking tobacco, which he very much enjoyed; and a fine suit of clothes, entirely superfluous, considering the climate of Yuma and the sartorial habits of his tribe, but adding greatly to his dignity and standing. Therefore he was very anxious for the mission to be established.

Naturally, the amount of gratuities which the

two priests were able to bring with them was very small, and the disgruntled aboriginal executive received the ecclesiastical arrivals with tempered cordiality. Nevertheless, the tact of Father Garces seems to have tided things over pretty well until a year later, when twenty-one soldiers, twelve laborers and twenty colonists journeyed over the deserts to the new settlement, each bringing with him a wife and a family of children.

To make their welcome at the hands of the expectant savages doubly sure, these new colonists calmly took possession of what Indian fields they wanted, and asked the natives the old question, "What are you going to do about it?" For the time being it seemed nothing was done about it, and a pueblo was established on the west side of the river at the mouth of the Gila, which was called Concepcion, and a second village was laid out three leagues farther south and christened the unassuming name of San Pedro y San Pablo de Bicuner.

For nearly two years the colonies maintained a precarious existence. The Yumas, next to the Apaches, were considered the most dangerous Indians of the Southwest; add to that fact that the soldiers were brutal and licentious and we find a condition that made disaster a little less than inevitable.

The padres, who realized fully the harvest that all this was leading to, did all they could to restrain their countrymen and placate the Indians, but the trouble was past mending. The proverbial last straw was laid upon the none too patient camel's back in June of 1781 through the aggressions of a new arrival of soldiers. Captain Fernando Rivers, lieutenant-governor of Lower California, with a party of soldiers and emigrants, stopped at Concepcion on his way to Santa Barbara. Part of his expedition he sent on to California, part back to Sonora, while, with a handful of soldiers, he remained, camping on the east side of the Colorado, where he pastured his horses and cattle—nearly a thousand head—upon the mesquite beans on which the Yumas largely depended for food.

On Tuesday, June 17, 1781, the lightning struck! At Concepcion, while in the very act of celebrating mass, Father Garces was clubbed to death by the natives for whom he had labored so earnestly. The comandante of the village, who was also in the church at the time, was killed in trying to reach his command, as was the corporal who followed him. It is recorded that the heroic Garces gave the dying soldier absolution even though he was at the point of death himself.

At Bicuner, the two priests, Diaz and Moreno, were killed, and, after having desecrated the images and altar, the savages destroyed the church.

They next attacked the force of Captain Rivera, and although the Spaniards entrenched themselves and made a valiant defense, within a few hours the last man was killed.

Two friars, through the aid of Chief Palma, who it seems was not wholly in accord with his

bloody tribesmen, succeeded in getting clear of the settlement, but were finally pursued and killed.

When the news of the massacre reached the comandante of the military forces, General de Croix, he at once began plans for the severest retributive measures. Though chafing under the delay, it was a year before he could spare the necessary force, but in September, 1782, he sent a hundred and sixty soldiers, who, combining with a company of Spaniards and allied friendly Indians from California, engaged the Yumas to deadly purpose. They did thorough work, one hundred and ten of the Yumas were killed, with eighty-five captured and ten Christian prisoners recovered.

The story was told by the liberated captives that after the massacre the Yumas would not live in the vicinity of Concepcion, for every night a ghostly procession of the slain would wend its way about the mission, each carrying a candle, while a tall figure in white walked at its head, bearing a cross.

It must be remembered that, however much the Spaniards suffered from the Yumas, there had been provocation for their ghastly work. No such extenuation could be credited to the Apaches. With them raids upon weaker people, either red men or white, for the purpose of plunder, was part of the plain matter of living, and the murders which accompanied these predatory acts were often committed in pure wantonness. So persistent were they in their attacks upon the settlements in

the Santa Cruz Valley and other parts of Pimeria Alta that, in 1786, General Ugarte, the comandante, began a vigorous campaign against them in which work he was gladly aided by organized companies of Pima and Opata allies.

Diplomacy as well as military prowess seems to have had a part in these operations, for at the end of an energetic campaign a treaty was made wherein the Indians were to be furnished rations which cost the crown from \$18,000 to \$30,000 a year, and a policy adopted thereafter which surely should meet with the approval of those who consider that the gentle Apaches would never have given Arizona any trouble had it not been for the unkind treatment afforded them by the whites. The old chronicle says that they were furnished with supplies, encouraged to form settlements near the presidios, and as a crowning consideration, taught to drink intoxicating liquors.

Still, even with all this thoughtfulness, occasionally not only the Apaches, but even independent groups of the younger Pimas and Papagos went raiding. However, the military forces seem to have been strong enough to promptly bring them back to the paths of peace and mescal, and so quiet was the time in comparison with what went both before and after that from 1787 to 1815 may be considered almost the golden period of mission history—or at least gilded well enough so in looking back through the vista of a century it reflects a golden glamour not wholly unpleasant. Not only were the missions prosperous, but settlers came in

from Mexico, and stock raising and farming were engaged in in favored localities. Trade was carried on with Sonora by means of pack trains. Strongly guarded by armed escorts, the *arieros* would load their pack mules with hides, wool, buckskin and rich ore, and take the long journey over hills and deserts to Hermosillo or Guaymas and bring back zarapes, mantillas, cloth, sugar, imported wines, jewels and silver coins.

Cattle and horses were raised along the Santa Cruz and the San Pedro, and in such ranchos as the San Bernardino, and driven down to the port of Guaymas and turned into Spanish gold.

It was probably just prior to this time that a beginning was made on the present beautiful mission of San Xavier. Padre Baltasar Carillo was in charge of the mission from 1780 to 1794, and it is fairly well established that the work was started early in his administration.

There is a date, "1797," cut on one of the inner doors of the church, which very likely records the year of the structure's completion. This was during the administration of Padre Carillo's former assistant, Padre Narciso Gutierres, who in turn was assisted at different times by Mariano Bardoy, Ramon Lopes and Angel Alonzo de Prado.

It will be noticed that all, with perhaps one exception, are very characteristic Spanish names, and it is to these men who built for the glory of God rather than for their own aggrandizement that the honor of making possible this beautiful structure erected in the midst of the desert is due.

Under the administration of these devoted fathers we may picture Arizona mission life at its best. We can hear the mellow tones of the bells in the tower of San Xavier filling the little valley of the Santa Cruz with their music. We can see in the early morning the Indian neophytes, stolid, but wholly devout, with uncovered heads and sandaled feet, assemble for matutinal prayers, and the rite once over, watch them with clear conscience shuffling off to breakfast of corn cakes and frijoles to discuss the cock-fight scheduled for the following Sunday afternoon.

As the day proceeds we witness an animated At a brickvard a vigorous padre, with his gown tucked up out of the way of his feet, is directing the firing of a kiln; at the smithy, a friar blacksmith is cunningly fashioning hinges for a door to the church or putting a bolt in an ox bow, which, by the way, will be tied to the beast's horns. Woodworkers are making boards with hand saws from timbers brought down from the Santa Catalina Mountains on the backs of mules or burros. and in the fields are Indians irrigating or weeding the mission gardens. At noon there are more corn cakes, prayers and frijoles; in the afternoon, more work; in the evening, mission bells again bring in the tired workers to spiritual and material nourishment. The day, especially if it is Saturday, may be closed by a baile where the Indians dance on the hard ground to the music of the harp and the guitar. Yet we hear that some of the neophytes. preferring paganism with indolence to piety coupled with labor, would occasionally run away!

At Guevavi, the oldest mission of Arizona, there never seems to have been more than a small adobe church, but at Tumacacori a very beautiful mission building was erected. Fray Beltasar Carillo was at Tumacacori from 1794 to 1798, and Fray Gutierres from that time until 1820, and it is likely to these men, who did the building at San Xavier, should be given the credit for Tumacacori as well.

The mission of San Xavier del Bac, beyond all question the most beautiful edifice in the Southwest, is kept in fairly good repair. On the other hand, Tumacacori, which was not only more beautiful but far more ambitious than many of the California missions of nation-wide fame, is now, through most deplorable neglect, in sad decay.

Beginning with the Mexican wars of independence against Spanish rule, the short years of the prosperity of the missions of Pimeria Alta came swiftly to an end. From 1811 on, money and food were inadequately and irregularly supplied the soldiers at the garrisons, and the military force became thoroughly disorganized. Rations to the Apaches also were cut down, and in consequence the redskins promptly resumed their old habits of stealing stock, raiding ranches and murdering settlers.

The padres did the best they could to hold their neophytes together, but on September 2, 1827, came the end of mission days. With the independence of Mexico achieved, orders were given at the capital for the expulsion of the Franciscans, and they soon left the country.

San Xavier was placed under the charge of the secular parish priest at Magdalena, but that was miles away, and naturally visits could be made but rarely.

In a letter written in 1835, Don Ignacio Zuniga, former commander of the northern presidios, stated that since 1820 no less than five thousand lives had been lost in Pimeria, and that at least a hundred ranchos, haciendas, mining camps and other settlements had been destroyed, and from three thousand to four thousand settlers had been obliged to quit the northern frontiers. He also speaks of the hostility of the Pimas and Papagos, who had doubtless suffered at the hands of the military, as well as from the usual raids of the Apaches.

A melancholy ending, surely, for a period that had promised so much—Guevavi, Tumacacori and San Ignacio deserted, a squalid town at Tubac, another but little better at Tucson, where the inhabitants depended more on the adobe wall for protection than on the soldiers, and San Xavier with priestless altar and silent bells.

But the one bright ray perhaps in all this depressing cloud was the fact that the Papago neophytes did not forget—but hid securely the altar furniture for the time when their simple faith told them the fathers would return, and kept the affection for them in their hearts.

We shall see later that this faith was not unrewarded.

CHAPTER IV

THE ARRIVAL OF THE AMERICANS

HE efforts of Mexico to free herself from the rule of Spain had their beginning in 1810 with the revolution inspired by Hidalgo, the fearless, liberty-loving curate of Durango. Although after brief successes Hidalgo suffered death at the hands of the king's soldiers, the cause triumphed, and in 1822, with the treaty signed by General Iturbide for Mexico and Viceroy O'Donoju for Spain, the independence of the country was achieved.

However, even independence does not solve all of a nation's civil problems. In 1822, with great acclaim, Iturbide was crowned emperor; in 1823 he was compelled to give back his crown; in 1824 he was executed by the new republic. What makes this of special interest to the Arizonan is that his state within those three years was a colony of the king of Spain, an outlying district of a New World monarch and a territory of the Republic of Mexico.

In 1824 the new constituent congress joined New Mexico to Chihuahua and Durango in one "Estado Interno del Norte." As the capital was to be located in Chihuahua, Durango objected to the arrangement, whereupon the obliging law-makers

made a territory of New Mexico and formed Chihuahua and Durango into states.

The capital of New Mexico was, of course, Santa Fe, which then contained a population of about forty-five hundred people, and while the houses were of adobe, they were comfortable and picturesque, being built around a central court or patio. They were furnished simply, and brightened with Navajo blankets.

Altogether that part of New Mexico had a population of over twenty thousand whites and eight thousand friendly Pueblo Indians. Along the upper Rio Grande were irrigated ranchos, rich in horses, cattle, grains, sheep and fruit. A good wine was made and there was a steady commerce between the territory and Chihuahua City.

In contrast to this prosperity, in the western part of the territory—the present Arizona—by reason of the constant menace of the Apaches, things were in a sad condition. All the ranches had been abandoned, and the only Spanish settlements were the villages of Tubac and Tucson, whose existence was made possible by small garrisons of soldiers. At Tucson there was the additional protection of a surrounding adobe wall.

The only mines that were worked to any extent in this section under Spanish or Mexican rule were the Planchas de Plata already mentioned and the Santa Rita del Cobre copper mines, which were located at the foot of Ben Moore Mountain, nine miles from the modern Silver City.

The Santa Rita was worked as early as 1804,

and the ore extracted was so rich that it was sent by pack animals to Chihuahua, where it was converted into the copper coinage of the country.

Three mines were included in the Planchas de Plata group, the Las Cruces, the Tupustetes, and the Arizona or Arizuma, from which great chunks of pure silver were taken, one mass alone weighing 2,700 pounds! Both the Santa Rita and the Planchas de Plata mines had to be deserted from time to time on account of attacks by the Apaches.

The first citizen of note from the United States to penetrate into the Southwest was Lieut. Zebulon M. Pike, who, in 1806, with twenty-two men, was sent by his superiors to explore the country of the Arkansas and Red rivers. In January of 1807 he built a small fort on the upper waters of the Rio Grande, in Spanish territory, believing, as he afterwards explained, that he was on the American side of the Red River.

He was arrested by Spanish dragoons and taken to Governor Alencaster at Santa Fe, who treated him as a guest rather than a prisoner, but nevertheless took him on to Chihuahua to explain matters to the military chief, General Salcedo.

When Pike returned to the States his account of the richness of the Spanish settlements in New Mexico created much excitement not only among the adventurers, but also among the enterprising frontier merchants who were always ready to send argosies into danger where there was a chance for large profit.

The romantic story of the "Trail" that was

made from Independence, Missouri, to Santa Fe and the great caravans of mule and ox teams that went over it is well known.

From 1822 to 1844 were the halcyon days of dangers braved, adventures encountered and fortunes won. The amount of merchandise carried over the trail the first year was \$15,000; the last, \$450,000.

Naturally, many of the bolder spirits among those who went to Santa Fe ultimately made their way yet farther west. As a result, early in 1824, while the Franciscans were still holding mass at San Xavier and Tumacacori, American trappers and hunters were exploring the Gila, Salt, Colorado and other rivers, finding in favorable localities plenty of beaver and an abundance of game almost everywhere they went.

There were at that time fourteen or more tribes of Indians in Arizona, which were scattered pretty much all over the state. Many of these tribes, like the Pimas, were uniformly hospitable to the newcomers; others, like the Mojaves, were friendly enough if treated with tact, but quick to resent ill treatment; and still a third class, as was the case with the Yumas, were almost always either suspicious or actively hostile.

The Apaches were divided into a number of small clans, including the Chiricahuas, Mimbres, Pinalenos, Coyoteros, Aravaipas, Tontos, San Carlos, the Mojave Apaches and the Yuma Apaches.

To understand the Apache one must get his point of view. To him life was a perpetual warfare. If a neighboring tribe had something that he wanted, and he was strong or cunning enough to get it, there was no reason why he should not take it; and, as we have seen before, the slaying of an antagonist on a raid was simply an incident of the business in hand—a sort of Frederick the Great or Napoleon point of view. Add to this that the Apache was ever ready to avenge a wrong tenfold, and one can begin to understand why, down to as late as 1886, he was the perpetual Sword of Damocles that hung over the Arizona pioneer.

In justice to the Indian, however, it must be said that in his trouble with the whites he was not always the aggressor. Sometimes the white man was as bad as the Apache with less excuse for his depravity.

There is an old story, the scene of which is laid at the Santa Rita copper mine, of which many variations are told, and in which there is probably enough truth to be an illuminating commentary on conditions in the Southwest at that time. During 1838, so one account gives the date, the Mimbres Apaches, under their chief, Juan Jose, who lived along the present Arizona-New Mexico boundary, were giving so much trouble to the trappers and the Mexicans who were working the Santa Rita mines that drastic retaliatory measures were decided upon. At this time there were several parties of trappers on the headwaters of the Gila. The captain of one of these was an Englishman by the name of James Johnson, who suggested a plan whereby the Mimbres would be

"settled" for all time. After arranging the matter with the managers of the Santa Rita, he invited Juan Jose and his people to come to the mine for a big feed. Within a hundred yards of the place selected for the feast, and pointing directly at the spot, Johnson concealed a six-pound howitzer, loaded to the muzzle with slugs, musket balls and nails, under a pile of pack saddles. A sack of flour was given the Indians to divide, and while the Indians crowded about it Johnson touched his lighted cigar to the vent of the gun, killing and wounding a score or more, among them Juan Jose. The massacre, so the stories go, was completed by other trappers and Mexicans.

The surviving members fled, but only to plot a fearful revenge. The copper mines were wholly dependent on Chihuahua for supplies, which were brought in guarded pack trains. After the massacre the time for the train came and passed with no word concerning it. Finally, the provisions were all but exhausted. The only hope the miners and their families had of escaping starvation was to cross the deserts that lay between the mines and the settlements. They started, but the Apaches, who had destroyed the train, attacked and killed them all but four or five, who, after suffering incredible hardships, finally reached Chihuahua.

Many stories, differing wholly in detail, but agreeing in essential parts, are told of John Glanton, another candidate for perpetuation in the halls of infamy. About 1845 depredations by the Apaches became so continuous that the Mexican authorities, joined by wealthy rancheros, offered \$100 for the scalp of every Apache warrior, \$50 for the scalp of a squaw and \$25 for that of a child. Glanton became covetous for some of this blood money, but disliking the dangers incident to tracking the wary Apache, decided that the hair covering the peaceful Pima did not greatly differ from that of the quarry upon whom the reward had been set, so took to pot-shooting not only friendly Indians, but even Mexicans themselves, exchanging the scalps for money at Chihuahua. However, it was a business that any conservative life insurance company would have classed as extra hazardous, and finally Glanton and his accomplices were caught red-handed while scalping Mexicans they had murdered. Glanton escaped to New Mexico, but was later killed by the Yuma Indians, who took his worthless life in payment for gold he had stolen from them.

Prominent among the early trail makers of the state were Sylvester Pattie and his son, James, who entered the country in 1824. In an account afterwards written by James their adventures are graphically set forth and include many battles with the Indians, suffering from heat and thirst on the desert, perils by tidal waves on the Colorado, and finally the death of the elder Pattie in a California Spanish prison.

The most picturesque of the pioneer adventurers was undoubtedly Bill Williams, for whom Bill Williams Mountain and Bill Williams Fork were named. We hear of him in 1825, in the Far

Northwest, from which point he trapped and fought Indians as far south as Sonora. Long, sinewy and bony, with nose and chin almost meeting, he was the typical plainsman of the dime novel. He always rode an Indian pony, and his Mexican stirrups were as big as coal scuttles. His buckskin suit was bedaubed with grease until it had the appearance of polished leather; his feet were never incased in anything but moccasins, and his buckskin trousers had the traditional fringe on the outer seam. Naturally, Indian signs were an open book to him, and he was even readier to take a scalp than an Apache, who preferred to crush the heads of his victims and let the hair stay. At the age of sixty he died a natural death caused by a bullet from a Ute Indian.

A far different type of man was Kit Carson, who was the ablest plainsman of them all, and more than once rendered valuable aid to the nation. He was Frémont's guide throughout his explorations, and to him rather than to his chief should have been given the title of "Pathfinder."

He was a boy of seventeen when we first hear of him with a party of trappers on the Gila, and soon thereafter was a member of Ewing Young's party, where he gave a good account of himself in a battle with the Apaches. Originally from Kentucky, after 1832 he made his home in New Mexico, but was often in Arizona, where the Indians respected his character as well as his daring and skill with the rifle. Withal he was the most unassuming of men, never boasting, and with a voice as

soft as a woman's. In appearance he was rather below the average in height, but muscular and of almost incredible endurance.

CHAPTER V

THE WAR WITH MEXICO

F the events causing the transfer of title of the present Arizona from Mexico to the United States the territory saw but little. By proclamation, May 30, 1846, President Polk announced the existence of a "state of war" with Mexico, and in carrying out the plans for the invasion of New Mexico, Chihuahua and California, the Army of the West was organized, and its command given to Stephen W. Kearny. This army, as it moved westward from Bent's Fort on the Arkansas, numbered about fifteen hundred men, and included a regiment of Missouri cavalry, Colonel Doniphan; three squadrons of dragoons, Major Sumner; two batteries of artillery, Major Clark; and two companies of infantry, Captain Angney.

It was, of course, the desire of the administration at Washington to occupy this western territory with as little bloodshed as possible, and to that end arts of diplomacy were invoked as well as the force of arms; so accompanied by Capt. Philip St. George Cooke, with an escort of soldiers, went James Magoffin on a "secret mission" to Governor Manuel Armijo at Santa Fe.

Magoffin was a man of great tact and good fellowship who for years had been in the Santa Fe trade and was well liked in New Mexico. Just what influence Magoffin brought to bear on the governor was never revealed, but it was conspicuously successful. Only a few days before, Armijo had issued a florid proclamation calling upon the people to rally in repulsing the American invaders. After his conference with Magoffin, although his people offered him substantial support, when the Americans reached Apache Canyon, which could have been defended by the Mexicans with half their resources, Armijo had fled to Chihuahua.

Magoffin had more difficulty in winning over Archuleta, the second in command, yet by appealing to his ambition and cupidity succeeded in overcoming his active opposition. As a result, when Kearny came up with his army, the Mexican forces had faded away.

On August 18th, without any opposition whatever, the Americans entered the city of Santa Fe, where they were cordially received by Lieutenant-Governor Virgil. Accompanied by a salute of thirteen guns, the American flag was raised over the palacio of the Spanish governor.

Without any delay, Kearny commenced work on the military post, Fort Marcy, and on September 22nd announced his plan of civil government. Charles Bent, an American, who was married to an estimable Mexican lady, was appointed governor, with Donaciano Virgil, a native New Mexican, secretary. For United States attorney, Francis P. Blair, Jr., afterwards famous as a statesman and soldier, was chosen.

Four days after the new officers had been sworn in, Kearny, now a brigadier-general, with two hundred dragoons, commenced his march to California. He left behind him Colonel Doniphan, who afterwards captured Chihuahua. Col. Sterling Price, now on his way with the Mormon Battalion, was to stay with the army at Santa Fe.

Before Doniphan started south to commence his campaign in Chihuahua, he went to Bear Springs in the Navajo country, where he had a conference with the leading chiefs of that tribe. The Navajos were, then as now, the strongest Indian nation of the Southwest, and although never showing the wanton, blood-thirsty characteristics of the Apaches, for several years had been the traditional enemies of the Pueblan Indians and the Mexicans alike. They had stolen their flocks and herds, and had even at times carried away Pueblan women.

In greeting Doniphan and his associates the Navajo chiefs displayed every cordiality, expressing their friendship and admiration for the Americans, but were equally outspoken regarding their detestation of the Mexicans, and could not understand why Doniphan should object to their raiding them. However, finally, fourteen of the chiefs signed a treaty agreeing to be peaceable, which treaty, it may be added, as was characteristic of the Navajo, they soon broke.

In January, a little over three months after Kearny had left, a revolt, headed by Don Thomas Ortiz and Diego Archuleta, who had failed to receive the honors and emoluments vaguely suggested to him by Magoffin, was plotted against the Americans. The plan was discovered, however, before it reached its eonsummation, and the leaders, like Armijo, fled precipitously into Mexico. Almost immediately afterwards a second revolt was planned and executed, many Pueblo Indians joining the disaffected Mexicans. Governor Bent, who was visiting in Taos, and other American officials were murdered in a most barbarous manner.

A vigorous campaign against the rebels was immediately begun by Colonel Price, in the course of which several small but desperate engagements were fought. The insurgents were finally decisively beaten and the leaders executed.

In the meanwhile, on October 6, 1846, ten days out of Santa Fe, General Kearny met Kit Carson, with fifteen men, carrying important dispatches for Washington. From him General Kearny first learned the momentous news of the subjugation of California by Commodores Stockton and Sloat and Captain Frémont. After undertaking the forwarding of Carson's papers on to Washington, Kearny induced the guide to accompany him to California.

In addition to his dragoons Kearny had with him a train of pack mules and two mountain howitzers, but no wagons.

On resuming his march, Kearny, now about two hundred and thirty miles below Santa Fe, went westward to the copper mines on the Gila River, and from thence followed down the course of the river.

Soon after he entered what is now Arizona he

encountered a band of Mimbres Apaches headed by Mangas Colorado, an Indian of gigantic stature, who later was almost continuously on the warpath against the whites. Although the Apaches made no attempt to rob or harass the Americans, the impression they made was not favorable. Later, when meeting a band of "Giland" Apaches, one of the chiefs suggested to Kearny that if he would raid the Mexican settlements of Sonora, in return for loot they would gladly give them plenty of reinforcements.

Upon being stopped by the precipitous walls of the box canyon of the Gila River, the Aravaipa Trail was taken to the San Pedro Valley, from whence the army returned to the Gila along a wellbeaten Indian trail, probably the same one followed by Fray Marcos three hundred years before. From there on, in a general way, they followed the river to the Pima country, where the Indians received them most hospitably, offering melons, grains and provisions for sale.

In the journal of Capt. A. R. Johnston, who accompanied the expedition, he says:

"The Indians exhibit no sentiments of taciturnity; but, on the contrary, give vent to their thoughts and feelings without reason, laughing and chatting together; and a parcel of young girls, with long hair streaming to their waists, and no other covering than a clean white cotton blanket folded around their middle and extending to their knees, were as merry as any group of like age and sex to be met with in our own country."

The Colorado River was crossed by the expedition on November 24th, and on December 6th they encountered a superior force of Mexicans at San Pascual, well towards the Pacific. After a sharp engagement they drove them from the field in disorder. However, the army of the Californians re-formed the next day, and although the attack they made on the Americans was unsuccessful, they cut off their further advance.

As Kearny's men were wholly without supplies, the situation was desperate. To get word to the Americans, whom they believed to be in San Diego, that night Kit Carson, Lieutenant Beale and a friendly Indian crawled through the enemy's lines, and although sick with hunger and thirst, and their feet lacerated with cactus needles, they finally reached San Diego, where they found Commodore Stockton, who promptly sent back reinforcements with provisions. A day later the Americans entered San Diego in triumph.

The Mormon Battalion, one of the divisions of Kearny's army which crossed Arizona on its way to California, was, both in its inception and history, nothing less than remarkable. Its members, belonging to a religious sect that had been persecuted and driven from their homes in Illinois and Missouri, offered their services to do battle for and defend the very nation that had failed to give them protection.

However, their actions were inspired probably by personal advantage as well as loyalty to the country. At the time of the beginning of the Mexican war, seeing that it would be impossible for them to return to their own homes, their leaders had decided to emigrate to some place in the Far West in the hope of finding a land where they could dwell without molestation. Doubtless it was the opportunity that it would give the soldiers to become acquainted with the possibilities of the West as a field for colonization that made the organization possible.

The agreement between the Mormon leaders and the administration was that the recruits should enlist for a period of twelve months, with the understanding that they were to march to California, receive pay and allowances during the time, and at the end of the year be discharged and allowed to keep their arms and accounterments.

Five companies were finally mustered into the service, and a motley organization it must have been. It included the feeble as well as the strong, mere boys and the old and infirm; it was undisciplined and ill clad, and to cap the climax, they were to carry their women with them.

Nevertheless, on July 20, 1846, they started west from Council Bluffs, Iowa, where they were mustered, and after great hardships, on October 9th, the first division of the battalion arrived at Santa Fe. Here they were put in command of Lieutenant-Colonel Cooke, who immediately tried to make some sort of a military organization out of the raw material.

Realizing that it would be utterly impossible for the battalion in its present form to make the journey across the deserts of Arizona and California, those unfit for service were weeded out, reducing the number from five hundred to three hundred and fifty. Of the women, only five wives of officers were allowed to proceed with the journey, and they were obliged to furnish their own transportation.

Still, with all the care of preparation that Colonel Cooke could make, the start west, which commenced October 19th, was inauspicious enough. The troops had sixty days' rations of flour, sugar, salt and coffee; salt pork for thirty days and soap for twenty. These supplies were to be carried in wagons, and as there had never a wagon, up to that time, crossed the territory, and roads other than Indians trails or paths over which the old Spanish caretas used to travel between Tucson and Sonora were absolutely unknown, some of the difficulties which faced the commander can be seen.

On account of the wagons some of the rougher mountainous country over which Kearny's dragoons journeyed was impassable for Cooke, who therefore led his troops in a general southwesterly direction into the state of Sonora to a point about fifteen miles north of the old Spanish presidio of Fronteras, and from there to the San Pedro River, where they turned north along its course.

Here the soldiers saw large bands of wild horses, cattle and antelope. The cattle and horses were from the Mexican ranchos which had been abandoned on account of Indian troubles.

There were Spanish bulls among them who

seemed to object decidedly to the presence of the Americans in their domain. Time after time these animals charged the forces, and it was anything but a humorous matter to the men attacked, several of whom were severely wounded. Naturally, shortage in beef rations was immediately remedied.

December 14th Colonel Cooke came upon four Mexican soldiers. A sergeant who was in command said they had been sent by Captain Comaduron, comandante of Tucson, with the request that the Americans should not pass through the town. The colonel returned word to the commander that if the garrison was very weak he would probably not molest it, and added that the soldiers tell the people that the Americans were their friends and would be glad to trade with them.

Continuing on their way, a day or so later, a second delegation from Tucson rode into camp and announced that they had been authorized by the comandante to make some sort of an armistice. After a discussion, Cooke told them he would be satisfied with the delivery of a few arms as a token of surrender and a parole. Sixteen miles from Tucson, Cooke was met by a third envoy, a mounted soldier, who simply delivered a note refusing the ferms offered and rode away. At this skirmishers were thrown out and the column made ready for an engagement, but before they had proceeded far two Mexicans were met who advised them that the soldiers as well as most of the inhabitants of the town had fled.

After camping on the desert over night, the Americans entered the town, where they found about a hundred people, perhaps a fifth of its population.

Following the example of Kearny, Colonel Cooke assured the people that they would be treated with kindness, and left a diplomatic letter for Don Manuel Gandara, the governor of Sonora, insinuating that authorities at Washington were really better friends to him than the central government at Mexico.

The Mormons, of course, were much interested in the old barracks and the surrounding walls, but still more curious to learn what provisions could be had. Their eager search was rewarded by finding a quantity of wheat stored in the barracks.

A three days' journey from Tucson brought the battalion to the edge of the Pima country, where these friendly Indians visited the camp, bringing letters from General Kearny and from his quartermaster which told of eleven broken down mules and two bales of goods left for him with the Pimas. Five of the mules had died, but the rest, with the bales, were promptly delivered to Colonel Cooke.

Writing of the Indians, the colonel says: "The Pimas are large and fine looking, seem well fed, ride good horses, and are variously clothed, though many have only the center cloth; the men and women have extraordinary luxuriance and length of hair. With clean white blankets and streaming hair, they presented quite a fine figure. But innocence and cheerfulness are their most distinctive

characteristics. I am told the Mexican officers offered them every persuasion and promise of plunder to excite hostility toward us. A few bushels of sweet corn were bought and issued as rations."

A few days later an attempt was made to transport some of their provisions by water down the Gila on an improvised barge, but on account of sand bars it was found impracticable.

On January 9th the battalion reached the Colorado; four days were consumed in crossing the river where they used the same improvised raft they had used on the Gila.

The balance of the long march was made without any noteworthy incidents, and the old San Diego mission was reached on January 27, 1847.

Although their long march proved of no special benefit in winning the Mexican war, nevertheless the Mormon battalion had accomplished a most important work for the Southwest and the nation.

Illy provided with equipment and clothing, and subsisting largely on game they killed, they had, through mountains and deserts, blazed a practical wagon road from the end of the Santa Fe trail to the Pacific, the knowledge of which proved of inestimable value to overland travelers, and suggested later a transcontinental railroad route that, owing to lack of steep grades, could be built at minimum expense.

CHAPTER VI

THE BOUNDARY SURVEY

HE treaty of Guadalupe-Hidalgo, which was signed February 2, 1848, ended the Mexican war and added to the United States 875,000 square miles of territory, which included Texas, New Mexico and California. The southern boundary of what is now Arizona, under the terms of the treaty, was fixed at the Gila River; the survey of the line between the two nations to be made under the direction of one commissioner from each side.

Early in 1849, President Polk appointed John B. Weller, afterwards governor of California, as commissioner to represent the United States, and Gen. Pedro Garcia Conde was selected by the Mexican government. Before the work was commenced, however, Weller was succeeded by John C. Fremont, who, being elected senator from California, resigned, and, in June, 1850, John R. Bartlett was appointed in his place.

In February, 1851, we find Commissioner Bartlett in his headquarters at the Santa Rita copper mine, and the work being prosecuted along the Gila River.

Besides the establishment of the international line, a careful investigation of the natural features of the country was undertaken, so in addition to the large corps of engineers, which was in charge of Lieut. A. W. Whipple, the party included a botanist, a geologist and other men of scientific attainments.

As with all expeditions into the Southwest at that time, the constant possibility of attacks from Apaches had to be considered and provided against. With the Bartlett party there was an escort of eighty-five soldiers commanded by Colonel Craig.

The Santa Rita mine was located in the country of the Mimbres Apaches, and the members of that tribe were daily visitors at the camp, ever ready to accept the substantial crumbs that fell from the rich man's table.

Mangas Colorado, who was then the chief of the Mimbres, was one of the most remarkable Indians in American history. A giant in stature, strength and mentality, he had all the requisites of natural leadership, and was withal one of the bloodiest savages that ever lived. Captain Cremony, who knew him well, says of him:

"He exercised influence never equaled by any savage of our time, when we take into consideration the fact that the Apaches acknowledge no chief and obey no orders from any source. The life of Mangas Colorado, if it could be ascertained, would be a tissue of the most extensive and afflicting revelations, the most atrocious cruelties, the most vindictive revenges and widespread injuries ever perpetrated by an American Indian. The

northern portions of Chihuahua and Sonora, large tracts of Durango, the whole of Arizona, and a very considerable part of New Mexico were laid waste, ravished and destroyed by this man and his followers. A strip of country twice as large as all California was rendered almost houseless, unproductive, uninhabitable by his active and uncompromising hostility. Large and flourishing towns were depopulated and ruined. Vast ranchos, such as that of Babacomari and San Bernardino, once teeming with wealth and immense herds of cattle, horses and mules, were turned into waste places and restored to their pristine solitudes. The name of Mangas Colorado was the tocsin of terror and dismay throughout a vast region of country, whose inhabitants existed by his sufferance under penalty of supplying him with the requisite arms and ammunition for his many and terrible raids. He combined many attributes of real greatness with the ferocity and brutality of the bloodiest savage. The names of his victims, by actual slaughter or captivity, would fill a volume, and the relation of his deeds, throughout a long and merciless life, put to shame the records of the Newgate Calendar."

One of Mangas' wives was a Mexican woman of comely appearance, whom he had stolen in a Sonora raid. This woman, his "favorite" of several wives, bore him three fine looking daughters, and, with a true monarch's diplomacy, he married them to other leaders of men like himself. One became the wife of a Navajo chief, and the other two were espoused to heads of influential Apache bands, thus widening his sphere of influence.

At the Santa Rita mines the presence of the soldiers, for a time, had a salutary effect upon the Indians, but it was inevitable that friction should come sooner or later.

The first hint of trouble showed itself one day when two naked Mexican boys, about ten or twelve years of age, dashed into camp, and, running into the tent of Captain Cremony, the interpreter for the expedition, breathlessly explained that they had escaped from the Apaches, who had stolen them six months before.

Mangas Colorado was in the camp at the time, and calmly proposed that if Bartlett wanted the boys he should buy them. The commissioner replied that they had been stolen and that he was going to take them without pay.

At this there was a terrible commotion, and, at a solemn conference that was held later, the outraged Apache chiefs arraigned the perfidious Americans in scathing terms. Had not the Apaches always been not only friends but brothers to the Americans? Had they not allowed them to enter into their country and live among them? Then how could they now try to steal their property? These captives belonged to a poor man, and their labor as slaves, or the proceeds of their ransom, was sorely needed by his wife and children. They were captured at the risk of the poor man's life! Should he now tamely give them up?—and so on and so on, the oratory lasting for hours.

The eloquence was irresistible. The additional fact that the hills were full of Apaches who held

similar views as to property rights was also irresistible. The poor, outraged Indian was given \$250 worth of commissary supplies.

A second cause for trouble came out of the incident of the killing of an Apache by a Mexican laborer over the possession of a whip. The Indians (again in conference), through one of their orators, Ponce, demanded that the man be immediately turned over to them for death, according to their customs! Commissioner Bartlett explained that the man's case must be tried before the authorities at Santa Fe, where, if he were executed, it would be done decently and in order.

This caused an absolute flood of expostulatory oratory. What good would it do the Apaches there for the man to be hanged in far off Santa Fe, where they couldn't see it! The mother of the murdered man wanted the blood of the slayer then and there.

The matter was compromised by Bartlett paying the mother \$30 and making the Mexican work in captivity, also paying his wages to the mother.

Although the Indians accepted the money, it did not in the least coincide with their ideas of justice, and in their dissatisfaction they took to stealing live stock belonging to the expedition, and at the same time pretending to be very zealous in searching for the thieves. Finally, Delgodito, one of the sub-chiefs who had been especially favored in gifts and otherwise by the party, was caught in the act of running off a bunch of cows.

Seeing that the game was up, Delgodito dropped his mask and, from what he thought was a safe distance, reviled his pursuers with taunts and gestures. At the very moment of a particularly insulting posture, dear to the Apache's heart, a bullet from the rifle of a teamster made a crease along his skin, and the howl of pain that the Indian gave was music to the Americans.

After that the expedition moved its headquarters to the land of the peaceful Pimas, a tribe whose characters were as good as the Apaches' were evil.

Somewhat earlier than this, while the commissioner's party was still at Santa Rita, a band of Mexican traders, under the leadership of one Peter Blacklaws, visited the camp, bringing with them a Mexican girl by the name of Inez Gonzales, whom they had bought from the Pinaleno Apaches. Although the girl had not been specially mistreated by the Indians, she had been held in slavery, and sold like any other chattel to Blacklaws. Bartlett at once took charge of her, and later had the pleasure of personally returning her to her people.

Inez, who was but fourteen years old, told the commissioner that the Apaches had a number of Mexican slaves, both men and women. Indeed, it was rather a common custom for the Apache braves to marry and treat quite like their own women girls taken from Mexican families.

All this time the work of surveying the international boundary was being carried on in a leisurely fashion, and finally, after many delays, was completed in July, 1853.

CHAPTER VII

THE GADSDEN PURCHASE

OR several reasons the boundary line as established by the treaty of Guadalupe-Hidalgo did not prove to be a permanent one. Reports made by Maj. William H. Emory, astronomer and escort commander under Bartlett, and others, as well as the experience of Colonel Cooke with the Mormon Battalion, brought to the attention of the administration at Washington that the most feasible southern route for a railroad to the Pacific lay in the Mexican territory south of the Gila River. Also, while the country was considered of negligible value for agricultural purposes, it was believed to have grazing possibilities and to be exceedingly rich in minerals.

Naturally, through feelings of pride, Mexico would be loath to give up more of her territory to the United States; yet she was desperately in need of money, so to James Gadsden, United States minister to Mexico, was given the commission of purchasing, if possible, a strip of land below the then borders of New Mexico, whose southern boundary in the part that is now Arizona reached only to the Gila.

So successful was Mr. Gadsden in his efforts that he brought back with him not one offer, but three, from the Mexican government, and assuredly all of them were bargains. For \$25,000,000 the United States could have all of the land south of the Gila to the parallel of latitude 30°, with Lower California thrown in; for \$15,000,000, Mexico would place the boundary at latitude 31°, or, if the United States only wanted to spend its small change, for \$10,000,000 it could have the land embraced within its boundaries as they are today.

When it is appreciated that the first offer would have given to us, in addition to Lower California, the greater part of Chichuahua and Sonora, with the rich mineral, timber and agricultural lands of these states, together with the valuable port of Guaymas on the Gulf of California, and also when it is further realized that the copper mines at Bisbee (which were, of course, situated on land included in the purchase) could have paid the purchase price of \$25,000,000 many times over, the opportunity which the United States let slip through her fingers will be realized.

There is little doubt, though, that this offer would have been accepted had it not been for the opposition of the anti-slavery faction which regarded all states south of the thirty-third parallel as slave territory.

Major Emory, who had done most efficient work on the first boundary survey, was appointed commissioner and surveyor to establish the line, with Jose Salazar Ylarregui as Mexican commissioner, assisted by Francis Jiminez as chief engineer. The initial monument was established at El Paso, January 31, 1855, and by June, 1856, the survey had proceeded as far west as Nogales. The line from the west was started at the Colorado River by Lieut. N. Michler in December, 1854, but after proceeding eastward for a short distance he was forced to stop operations on account of the impossibility of securing an adequate water supply and joined Emory in Nogales. The party pushed westward from that point, and in spite of the summer weather coming on, the work was prosecuted without interruption and was completed in August.

In addition to the boundary line, other important surveys were made in Arizona during the '50s, especially valuable as most of them, like both the surveys just completed, included scientific investigation of the country passed through, and gave the East accurate knowledge of its newly acquired southwestern territory.

The first survey in northern Arizona was made by Capt. L. Sitgreaves during 1852, his superiors instructing him to follow the course of the Zuni River to the Gulf of California. He did not attempt to follow the Colorado through the canyon, but instead turned west near the thirty-fifth parallel until, reaching the Colorado at that latitude, he journeyed along its course to Fort Yuma.

In 1853-54, under the direction of the War Department, a preliminary reconnoissance for a possible railroad was run by Lieut. A. W. Whipple and Lieut. J. C. Ives and party from Fort Smith, Arkansas, along the thirty-fifth parallel to California.

Another survey across northern Arizona about the same time was made by Francis Xavier Aubrey, who ran a line eastward from Tejon Pass, California, through to Zuni, New Mexico. In building through Arizona, the Atlantic & Pacific Railroad followed rather closely in places the line run by him.

Surveys for projected railroads were made through southern Arizona by Lieut. J. G. Parke in 1854-55, by A. B. Gray in 1855, and by J. B. Leach and N. H. Hutton two or three years later.

Lieut. Edward S. Beale, who, with Kit Carson, slipped through the Mexican line after the battle of San Pascual, in 1858 surveyed a line for a wagon road in the same parallel followed by Lieutenant Whipple. One interesting feature of his work was that he used camels as pack animals. These were animals owned by the War Department, the story of which will be told later.

All of these parties naturally had more or less trouble with the Indians, for example, the Aubrey party was attacked by forty or fifty Apaches, who up to that moment had concealed their arms, and as further "camouflage" were accompanied by their women and children. As soon as the fight was fairly on, two hundred and fifty more Indians suddenly appeared, charging with clubs, bows and arrows. Nevertheless, the little party of eighteen white men, with rifles and Colt revolvers, were finally able to beat them off.

On the branches of the upper Gila, Aubrey reports he saw an Indian load his gun with gold bullets to shoot a rabbit!

EARLY OVERLAND TRAVEL

Beginning with the close of the Mexican war, overland travel through Arizona to California steadily increased until, by the end of 1851, it has been estimated that over sixty thousand people passed through the territory. The route usually followed was, in a general way, the old Cooke wagon road, though various cut-offs were sometimes taken.

While the southern route must have been much more pleasant to follow in the winter than the more northerly one, the sufferings from heat and drought in the desert during the summer could have been nothing less than terrible.

At this time the depredations of the Apaches were mainly against the Mexicans, nevertheless both exploring and emigrant parties of Americans were not infrequently attacked. The larger wagon trains, if well guarded, usually got through without serious molestation, but the Apaches seemed seldom able to resist raiding small or illy-guarded groups.

Conspicuous because of the publicity given to it at the time, though no worse than hundreds of other similar incidents, was the Oatman massacre of 1851.

Royse Oatman and family were members of a party of fifty emigrants which left Independence, Missouri, in the summer of 1850, planning to form a colony on the fertile lands of the lower Colorado River. When they reached the Pima villages, Feb-

ruary 16, 1851, finding their food supply getting low, Oatman decided to push on with his family to Fort Yuma. A few days later, while camping just below Gila Bend, he was visited by a party of Tonto Apaches, who came up friendly enough and asked for food, but in spite of the fact that their request was granted, they suddenly attacked and killed the father and mother with clubs. An infant child was also killed, and the son, Lorenzo, a boy of fifteen, was clubbed, thrown over a rocky point and left for dead. A girl, Olive, aged sixteen, and Mary Ann, aged seven, were taken captives.

After the Indians had left, Lorenzo, gaining consciousness, managed to make his way back to the Pima villages. The girls were carried to the mountains in north-central Arizona, where they were treated as slaves, and, after about a year of captivity, were sold to a band of Mojaves, who took them to their haunts on the Colorado River. Here they seem to have been treated about the same as the other Mojave women, gathering roots and seeds for food, while the men put in their time at hunting.

Worn by the tortures of her life, the younger girl died in captivity, but Olive was kept by the Mojaves until 1856, when Americans, learning of her slavery, ransomed her and restored her to her brother.

EARLY MILITARY POSTS

In September of 1849, Lieut. C. J. Coutts, in charge of the military escort to the boundary sur-

veyors, established Camp Calhoun on the California side of the Colorado River, and, as no ferry had yet been established, gave much needed aid to travel-weary emigrants in crossing the stream.

Although the emigrant trail led through the present southern Arizona, it must be remembered that, being in the country below the Gila, it was on Mexican territory, and therefore could not be garrisoned by Americans.

On November 27, 1850, Major Heintzelman arrived with soldiers from San Diego and established a garrison, also on the California side, which he called Camp Independence. The next March the garrison was transferred to the site of the old Spanish mission of Father Garces and christened Fort Yuma.

The only other military post guarding Arizona at that time was Fort Defiance, which had been established in 1849, just west of the New Mexico-Arizona boundary in the present Navajo Reservation. Its principal purpose was to keep a watchful eye on the tricky Navajo, who had a decided penchant for raiding ranches of the Pueblans, Mexicans and Americans as far east as the Rio Grande.

NAVIGATION ON THE COLORADO

At first it would not seem that navigation would find a place in the annals of arid Arizona, yet from 1852 until the completion of the Southern Pacific from the western coast to Yuma many passengers and more freight were brought in deep sea boats from California, which, rounding Cape San Lucas, sailed up the Gulf of California to some convenient bay like Port Ysabel, where they would be met by light river steamers, and transfer of freight and passengers be made.

Yuma, 175 miles up the river, was the disembarking point for southern Arizona, while passengers and freight for Wickenburg, Prescott and central Arizona would be unloaded at La Paz or Ehrenberg. Hardyville, 337 miles up the river from Yuma, was generally considered the head of navigation, though for a while one steamer, at least, made regular trips to the mouth of the Virgin River some considerable distance farther to the north.

Soon after the establishment of Fort Yuma the Government gave a contract to George A. Johnston for taking freight from San Francisco to Yuma via the Gulf of California. Johnston brought his first cargo in the schooner Sierra Nevada to the mouth of the Colorado, where he built flatboats, piled the freight on them, and pulled them by hand to Yuma. The second contract was given to Captain Turnbull, who built a small side wheel steamer, the Uncle Sam, at the Colorado's mouth. However, the craft did not have engine power enough to successfully negotiate the rapid current of the river at high water. On June 22, 1854, it sank at her moorings a few miles below Fort Yuma.

In January, 1854, the General Jessup, a much

larger boat, was brought in by Capt. George A. Johnston, and from then until the Southern Pacific Railroad reached the Colorado, Johnston and his associates controlled the river traffic.

In September, 1854, the General Jessup exploded, and its successors, which were put into commission at different times, included the Colorado, 120 feet long; the Cocopah, 140 feet long; the Colorado No. 2, 145 feet long; the Mojave, 135 feet long; the Cocopah No. 2, and barges Black Crook, White Fawn and Yuma.

Opposition to the Johnston line appeared in 1864 in the steamer Esmeralda, owned by Thomas E. Trueworthy, and the Vina Tilden of the Philadelphia Mining Company. Two years later a new navigation company bought the two boats, but failed soon afterwards, leaving a clear field to Johnston.

As is the case in all western streams, the waters of the Colorado fluctuate greatly during the different seasons. Draining much of the western Rocky Mountain slopes, in early summer a rise of thirty feet will sometimes happen at Yuma, and in the narrow gorges of the Grand Canyon the water not infrequently mounts one hundred feet or more up the precipitous walls. For the rest of the year the river dwindles to a sluggish, almost shallow stream, brick-red with mud. These are the times when the early steamboats would spend dreary hours getting on and off sand and mud bars, and on summer days, with the mercury registering 115 or more, the boredom of the passengers would

only be equaled by the perspiring disgust of the hoat crew.

The first craft on the Colorado to be used steadily as a ferry had been built at the Pima villages by a party of emigrants and floated down the Gila. An added interest was given to the voyage by the birth of a son to Mrs. Howard, the wife of a clergyman—probably the first child of American parentage to be born in Arizona.

This flatboat was operated as a ferry for a while on the Colorado at Fort Yuma under the direction of Lieutenant Coutts, when it passed into the hands of a man by the name of Lincoln and the notorious scalp-hunter, Glanton. Glanton quarreled with the operator of a rival ferry and killed him; whereupon, as has been related, already having grievances enough against Glanton, the Yuma Indians shot him to death with their arrows.

This seemed to have stopped the ferry business for a while, but in July, 1850, a new boat of cottonwood logs was built by L. J. F. Jaeger and B. M. Hartshorn, and the service was re-established.



THE PROSPECTOR
Painting by Marjorie Thomas, Owned by E. L. Graves

Poston with the mineral possibilities of the new country that in 1856 we find him the leader of an expedition sent out by the Sonora Exploring and Mining Company, a corporation organized at Cincinnati, with Gen. S. P. Heintzelman as president, for the purpose of engaging in mining in the rich country Poston had visited. Tubac was the objective of the expedition, which it reached via Tucson in 1857. With Poston, who besides being a director was to act as manager, returned Herman Ehrenberg.

MINING ACTIVITIES ABOUT TUBAC

The Americans proceeded to repair the old adobe buildings of the town. The frames for doors and windows as well as furniture were obtained by sawing out lumber with whipsaws from the pines of the Santa Cruz Mountains. For their meat supply we read that they had more bear, antelope and turkey than they could use.

The principal mine which the company developed was the Heintzelman, located thirty miles from Tubac. The first run of its ore was made through an adobe furnace, it taking six hundred hours to smelt out two thousand ounces of silver and three hundred pounds of copper. Although more modern methods were used later, in spite of the fact that the ore was very rich, sampling as high as \$1,000 to the ton, it never seems to have paid much in dividends to its stockholders. However, it paid good wages to workmen, and Ameri-

cans as well as Mexicans were attracted to the town until, in 1858, it contained a population of about eight hundred, one-sixth of the people being American. The town is described as being very attractive with its peach orchards and pomegranates. It is also stated that the only business transacted in the place outside of mining was its trade in mescal, which was very extensive.

It must have been a lively as well as interesting town. Poston, in writing of it, says:

"We had no law but love, and no occupation but labor; no government, no taxes, no public debt, no politics. It was a community in a perfect state of nature. As syndic under New Mexico I opened a book of records, performed the marriage ceremony, baptized the children and granted divorce."

In blithely thus assuming the prerogatives of Church and State, Poston was heaping up for himself and others a vast amount of trouble, for, after he had been marrying and baptizing for a year or two, Father Machebeuf, the vicar apostolic of New Mexico, came down, and, after learning the condition of affairs, said that so far as his church was concerned the actions of the zealous syndic were wholly spurious.

As Poston writes, "It was muy triste in Tubac." The visiting vicar, however, seemed to be equal to the emergency. "At last I arranged with the father to give the sanction of the church to the marriages" (he says nothing whatever about the divorces), "but it cost seven hundred dollars" (which Poston thoughtfully charged to the com-

pany as urgent and necessary expenses) "to rectify the matrimonial situation on the Santa Cruz."

In 1859, Tubac—and incidentally Arizona, though it wasn't Arizona then—had its first newspaper, the Weekly Arizonian. It had four pages, four columns to the page, and was printed on a hand press that came from Cincinnati via Guaymas. The paper was originally owned by the Salero Mining Company, and McClintock states that Col. Ed Cross appears to have done much of the editorial work, with Poston as a contributor. McClintock also says that after attacking Sylvester Mowry in his columns, that fiery mining magnate challenged Cross to a duel, which was fought with rifles—without bloodshed. Mowry then bought the paper and the duelists became fast friends.

As a medium of exchange, because silver bullion was too cumbersome, the company used boletas, which were nothing more or less than paper money issued by themselves, redeemable in silver. As none of the Mexicans could read, each boleta had a picture denoting its denomination. A "bit" was indicated by a pig, a 25-cent boleta was adorned by a calf; a rooster was worth 50 cents; a horse, \$1; and when the cashier handed the brown-faced laborer a ticket adorned by a bull, he knew he could buy Maria or Sarafina or Dorothea \$5 worth of dress goods, with a cone of penoche thrown in as pelon, down at the company store.

The company later erected at the Heintzelman

mine amalgamating works the machinery for which it brought from San Francisco at a cost of \$39,000. In 1859 about \$100,000 worth of silver was produced.

In addition to the Heintzelman, many other mines were worked in the vicinity, including the Santa Rita, Sopori and Arivaca, from which, notwithstanding the frequent raids of the Apaches, considerable ore was taken. The Patagonia, afterwards known as the Mowry, was also a famous mine in the same vicinity, discovered in 1858. It was famous not only for its richness, its ore assaying from \$80 to \$706 in silver per ton, but for the prominence of one of its principal owners, Sylvester Mowry, who was one of the most notable citizens in the Gadsden Strip.

PLACERS ON THE GILA

Placers were located on the Gila about twentyfour miles above Fort Yuma in 1858. There was a rush of fortune hunters to the place and soon "Gila City," as they called the mushroom town, had a thousand of as disreputable human beings as are often gathered together. Men are said to have panned out over \$100 of gold in a day and, incidentally, gambled it away the same night.

The diggings, however, soon gave out, and in a few years the last inhabitant had gone to dig and drink and gamble in some other place.

THE STORY OF ARIZONA

AJO MINES

The first copper mines to be worked in Arizona were probably at Ajo, which were located in 1854 by an exploring party sent out by the Arizona Mining and Trading Company from San Francisco, who expected to find rich property in the vicinity of the old Planchas de Plata. Valuable ore was taken out and shipped to San Francisco, and thirty tons of it, reshipped to Wales, sold for \$360 a ton.

OTHER SETTLEMENTS

Prof. W. Wrightson, in 1860, reports that Tumacacori was deserted except for three German settlers. Although fruit trees and vines were still growing, the church was deserted and already falling into decay. There remained a five-acre garden and a plaza surrounded by huts for laborers, forming a respectable village. Wrightson also says that there were remains of furnaces with quantities of slag near buildings where metallurgic operations had been carried on.

In '56 Poston describes Tucson as containing from three to four hundred Mexicans, and about thirty Americans, two American stores, one flour mill and other business places—probably saloons. He reports the place as being law-abiding, quiet and orderly.

It was that same year that the United States took military possession of the Gadsden Purchase

and attempted to give some protection to the towns and ranchos south of the Gila, but the protection thus afforded was most inadequate. Four companies of the First Dragoons were stationed at Tucson, where they relieved the Mexican garrison of twenty-six men, commanded by Capt. Hilario Garcia. Fort Buchanan was established on the Sonoita, twenty-five miles east of Tubac, in 1857, and Camp Breckenridge, near the junction of the San Pedro and Aravaipa rivers, was garrisoned in 1859. On account of the depredations upon emigrants by the Mojave Indians in 1857, Camp Mojave was located on the Arizona side of the Colorado River a year later, a few miles above the present town of Needles.

The present town of Yuma had its earliest settlers in 1854, who named their village Colorado City; later it was changed to Arizona City. Most of its buildings were destroyed by flood in 1861.

STAGE LINES

The first stage line to run through Arizona was established by the San Antonio-San Diego Stage Company, which started operations by sending eastward from San Diego three coaches in November, 1857.

Of the line, a year later, we read that passengers would have the comfort of six-mule coaches, except over a hundred sandy miles of the Colorado desert, when the hardy traveler exchanged his seat for a saddle on an equally hardy mule. Passengers were allowed thirty pounds of baggage,

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It was that same year that the United States took military possession of the Gadsden Purchase besides blankets and the very necessary firearms. For all these luxuries the charge from San Antonio to Tucson was \$50; to San Diego, \$200. An armed escort accompanied the train through the Indian country.

In 1858 this line was succeeded by that of the famous Butterfield Company. Its route covered twenty-seven hundred and fifty-nine miles—from San Francisco to St. Louis, via Los Angeles, Yuma, Tucson and El Paso. Mail was carried twice a week, for which the company received \$6,000 a year, with the understanding that the trip was to be completed within twenty-five days. The record trip was made when, by changing animals often and driving with breakneck speed, a flier was put through in sixteen days.

Later, under the name of the Southern Overland Mail, trips were made daily, and the mail pay was increased to \$1,300,000.

At this time the equipment consisted of more than 100 Concord coaches, 500 horses, 1,000 mules, 150 drivers and over 600 other employes. The through fare was \$100; letters were carried for 10 cents a half ounce.

The route followed the old Mormon Battalion road, and the armed guards were necessary, not only against Indians, but against Mexican and American outlaws as well. When Apaches were especially hostile, trips through their country would be taken at night, for while the Apaches would often go out on nocturnal stealing expeditions, they seldom, for superstitious reasons, made attacks upon fighting men except by daylight.

A typical tragedy of the road occurred when Silas St. John, a noted Butterfield mail rider, was building the stage station at Dragoon Springs, September, 1858. One night three Mexican laborers, tempted by the possibilities of robbery of arms and mules, attacked St. John and four American companions as they slept. Three were killed or mortally wounded, but St. John, immediately awakening, fought with such ferocity that the men fled. St. John, however, was in a desperate condition. His left arm had been severed by a blow from an axe, and there was a deep wound in his hip. Although almost dead from pain and loss of blood, for three days and nights the frontiersman defended himself and the bodies of his companions from covotes and buzzards. On the fourth day a party of Americans arrived in time to save his life.

On December 1, 1858, a stage line was established from Tucson to Fort Buchanan via San Xavier, Tubac and Calabasas, the fare between the two termini being \$12.

Tucson merchants handled both eastern and Sonoran merchandise. Early writers frankly say that the thing that made the trade with the southern republic especially lucrative was that it was so easy to smuggle the goods across the line through the mountains on pack mules. The principal imports were olives, oranges, lemons, tobacco and Mexican silver coins. On the return trips the pack trains carried dry goods, boots, shoes, groceries and notions.

CHAPTER IX

ATTEMPTS TO ESTABLISH TERRI-TORIAL GOVERNMENT

THE land acquired by the Gadsden Purchase was added to the Territory of New Mexico on August 4, 1854, and the succeeding New Mexican Legislature included it in Doña Ana County, whose county seat was Mesilla, on the Rio Grande. When it is remembered that Mesilla was two hundred and fifty railroadless miles from Tucson, and Santa Fe, the capital of the territory, was over five hundred miles distant by stage, it is not surprising to learn that the citizens in the Santa Cruz Valley had to largely administer their own laws, and yearly the necessity for some sort of a division of the overlarge Territory of New Mexico became more apparent. A convention was held in Tucson on August 29, 1856, which petitioned Congress to grant them the permission to organize a separate territory. The petition was presented to the House Committee on Territories by Nathan P. Cook, who had been chosen to represent the hoped-for commonwealth in Congress, but aside from the fact that the committee recommended the organization of a judicial district covering the Gadsden Purchase, nothing came of it.

At the next session of Congress, 1857-58, a bill

was introduced by Senator Guin for the organization of the Territory of Arizona, which would include the land south of the Gila, Doña Ana County, and an extension eastward to Texas. In the hope that this bill would pass, the citizens of Tucson elected Sylvester Mowry as delegate to Congress, but although Mowry made the trip to Washington, it was a fruitless errand, for the bill failed to pass.

It was about this time that the word "Arizona" seems to have been first suggested as a name for the new southwestern territory. Poston, in speaking of the matter, says that when he was in Mesilla in 1856 a petition to Congress was prepared asking for the organization into a separate territory of the country in the southern part of New Mexico lying between the Rio Grande and the Colorado. The document was drawn by William Claude Jones, attorney general of New Mexico, and when he came to the name he wrote "Arizona." It is not unlikely that the name then, as now, was with most people associated with the two Spanish words arida (arid) and zona (zone)—the dry land—certainly appropriate enough. However, its derivation was from something quite different. Dr. F. H. Hodge, the ethnologist, is of the opinion that it comes from the Papago, "ari-zonac," meaning small springs, and Dr. R. H. Forbes of the University of Arizona adds the idea that the Papago words imply small but everflowing water.

In any event the word was not unfamiliar in the Southwest. As we have seen, one of the mines of the Planchas de Plata, twenty miles southwest of Nogales, was called the Arizona or Arizuma, and within six miles of the Planchas de Plata is both a ranch and a rio Arizona. McClintock, in his "Arizona the Youngest State," mentions that earlier than 1754 Padre Ortega spoke of the "real of Arizona" being near the Planchas de Plata. In other words, Arizona was the name of the mining camp.

In 1858 Mowry was reëlected to the position of congressional delegate, and again went on a fruitless mission to Washington, where he seems to have had influence enough to have had new bills for Arizona's admission introduced in the winter of 1858-59, which, like that of earlier date, failed to pass. However, if Mowry was unable to get a seat in congressional halls it was not the fault of his constituents, for again, on June 19, 1859, a convention held at Mesilla followed the established precedent of nominating the popular miner as delegate. When the convention adjourned at Mesilla its members traveled on to Tucson, where another convention was in session, and the two bodies joined their voices in the request for a separate territory.

The most elaborate plan to form a new territory was made at Tucson in April, 1860, when a convention was held at which were represented Tucson, Arivaca, Tubac, Sonoita, Gila City and Calabasas in the present Arizona and many towns that now belong to southern New Mexico. The land to be embraced in the new territory was a

long, narrow strip one hundred and forty miles from north to south, and seven hundred miles from east to west, lying just north of Mexico and running from Texas to the Colorado. North and south lines were to divide the section into four counties, which, beginning at the east, were to be named Rio Grande, Mesilla, Elwell and Castle Dome. To prove to Congress that they were really in earnest the convention even elected a governor-Dr. L. S. Owings of Mesilla. That fall Senator Green of Missouri tried to get a hearing for a bill to provide temporary government for the Territory of Arizona, but was unsuccessful, as was Senator Jefferson Davis with a similar bill. At the election that fall Mowry, who seems to have had enough of empty honors, was out of it, and "Ned" McGowan fell heir to the elusive congressional toga.

As most of the settlers in the Gadsden Purchase were from the South and accustomed to slavery, it is not strange perhaps that the institution of peonage, which the Americans inherited from the Mexicans, did not seem repugnant to them. In any event, its protection was provided for in a statutory law up to 1867, when it was abolished by Congress.

The only difference between peonage and negro slavery was that a peon could not be sold from one master to another. The padron would pay this servant about \$5 a month, out of which he had to support himself and his family. Naturally, as this was impossible, he would go in debt buying

provisions and the like at the padron's store, where he was given ample credit. The peonage act, which was dignified with the title, "Law Regulating Contracts and Servants," provided that if a servant did not wish to stay in the service of his master, he could leave by paying what he owed him; but as the peon could not do this, he and his family remained in servitude all their lives. Parents had the right to bind their children out as peons, thus forcing slavery upon them. Should a peon try to escape, a warrant of debt served by an officer was all that was necessary to bring him back. In some ways the peon's lot was worse than that of the negro slave. When he was too old to work the master was under no obligations to keep him, and might turn him out to drift or starve.

Still, in spite of peonage and the fact that the organic act of New Mexico (embracing present Arizona), provided that New Mexico might eventually be admitted either as a slave or a free state as its citizens should decide, the Mexicans living within the territory owned no slaves, nor wanted any. Possibly the laboring class was too familiar with the burdens of peonage not to sympathize with the slaves rather than with the masters. When the test of the Civil War came the citizens of New Mexico, especially in the northern part of the state, cast their lots almost unanimously with the Unionists; not that they loved the North so much perhaps, but that they hated Texas more; and to them Texas meant the South.

CHAPTER X

FILIBUSTERS IN MEXICO—WAR DEPARTMENT CAMELS

URING the years immediately following the Mexican War a number of filibustering expeditions made their way from the United States into northern Mexico. That which was most particularly connected with Arizona was the ill-starred expedition of Henry A. Crabb in 1857. In that year Ignacio Pesquiera was the claimant for the governorship of Sonora against Manuel Gandara, who held the office. It is stated that Pesquiera offered to give Crabb a substantial strip of territory along the Arizona line if he would bring down one thousand Americans to help him win the governorship.

With an advance party of a hundred men, recruited in California, he crossed Arizona from Yuma into Sonora. By this time, however, Pesquiera had won his contest and, to save his face, repudiated his contract and called upon the people of Sonora to repel the invaders. "Let us fly then," he said, "to chastise with all the fury that can scarcely be contained in a heart swelling with resentment against coercion, the savage filibuster who has dared in an unhappy hour to tread our nation's soil, and to arouse, insensate, our wrath."

When besieged in Caborca, Crabb, after being

given a solemn promise by Pesquiera that if he and his party gave themselves up they would be transported safely across the line, surrendered his command, whereupon the Mexicans shot them, dividing them into parties of ten. The head of Crabb, it is said, was pickled in mescal and sent to Mexico City as proof of Pesquiera's incorruptible patriotism.

Previously, learning of Crabb's peril, Granville Oury and Charles Tozer led a party of twenty-seven men from Tucson for their relief, but before they could reach Caborca Crabb and his associates had been executed, and it was only after a serious battle with fifty Mexican lancers that the rescuers, with a loss of four of their men, were able to reach the border.

WAR DEPARTMENT CAMELS

After this bloody business of treachery and murder, for very contrast's sake let us turn to the pleasant comedy of the United States soldier and his camels.

It seems that it was the secretary of war, Jefferson Davis, who first conceived the idea. The nation had just acquired a desert, and, as every one knows, as salt goes with celery, so camels go with hot, sandy plains.

The fitness of the camel for the life in our Southwest was nothing less than marvelous. Camels could go seven days without water. A camel could carry a ton of merchandise between his humps and never shed a tear. A camel could travel farther in a day than a horse, and if, when after Indians an ambush should be attempted, the sight of the beasts alone would be enough to drive the Indians terror-stricken from the field.

It was on May 16, 1855, that the War Department sent Maj. Henry C. Wayne to the Levant a-camel hunting. His companion in the enterprise was to be Lieut. D. D. Porter, who was to proceed with the naval store ship "Supply" and join Wayne at Smyrna.

The camel buyer hastened on his quest, and soon acquired not only a wide and varied knowledge of bactrians and dromedaries, but also wisdom concerning the wiles of glib-tongued, darkskinned confidence men, who, with tears in their eyes over parting with the thoroughbreds of their herds, would sell them mangy, moth-eaten, worthless beasts whose age could be comparable with nothing less venerable than the Sphinx or the Pyramids.

However, the Americans learned the worthlessness of the animals, sold them for what they could and did purchase some really valuable camels. Such connoisseurs did Major Wayne and his associates become that, when at Cairo, the viceroy of Egypt offered to give six of his choicest dromedaries as a gift to the United States, but delivered three hump-backed scarecrows, the Americans firmly but politely declined the gift.

Finally, at Smyrna, the major not only completed the purchase of thirty-four fine animals, but also acquired two expert camel drivers, Hi Jolly (Hadji Ali) and Greek George.

The camels made a safe voyage, and when they were unloaded on the Texas coast, May 16, 1856, not only was the original purchase intact, but there were as well several baby camels which had been born en route, and the herd was driven into the corrals in Green Valley, Texas, forty-one strong.

After the camels were drafted into actual service a variety of reports was given as to their behavior and value. Lieutenant Beale, who, as we have seen, used them in his wagon-road survey, was enthusiastic in their praise. They actually carried a load of from seven hundred to a thousand pounds each, and although of uncertain temper when misused, were docile and patient under proper treatment and not at all particular as to food, preferring brush to grass, and delighting in the mesquite beans of the Arizona desert.

Other officers were not so enthusiastic. It soon developed that Hi Jolly and Greek George were the only ones who could keep seated when a camel really got to going, without being seasick or lashed to the saddle. The horses, until accustomed to the beasts, would stampede at the sight of them, and the soldiers assigned to duty as camel-valets developed such a deep-rooted aversion for their charges that more than one calmly cut the tie ropes and reported that, having become unmanageable, their beasts had escaped to the desert.

However, from Lieutenant Beale's experience,

the probabilities are that if the men could have been taught to handle them properly the beasts would have performed useful work. Unfortunately, at the beginning of the Civil War the experiment was stopped, the camels then in Arizona were sent to Drum Barracks, near Los Angeles, and used occasionally upon trips to Fort Yuma.

In 1866, a Frenchman bought the herd and took it to Nevada, hoping to use the camels as pack animals, but the feet of the beasts were unsuited to the stony mountain trails, and as before they stampeded every freight outfit they met.

The unfortunate Frenchman took the animals to Yuma, where he suddenly died, and the beasts were turned loose on the desert. From then on they became nomadic pariahs, bugbears to freighters and prospectors. Picture an Overland Jack driving from his seat on the "nigh" wheeler sixteen shave-tail mules when suddenly, out from an arroyo in front of him, would appear these natives of the Sahara. After the shouting and the tumult had died down, Overland Jack, with the aid of his Mexican swamper, would gather his mules retrieved from miles around, get his harness patched up, and when he got back to his wagons and had time to really talk about it, what he would say about camels would be wholly unprintable. Also, camel would be equally unpopular when the beast would walk through the corral fence of the keeper of a desert well and eat a hundred pounds of barley worth five cents a pound. So the freighter and the other desert travelers shot bactrians and dromedaries on sight, but for many years a remnant, grown wary through experience, remained.

About these survivors all sorts of weird tales were told. There was the story of the camel who saved the life of an escaped convict by leading him to the Tenijas Altas Springs; there was the story of the big red bactrian who haunted the west bank of the Colorado, and when the moon was full would carry on his back a skeleton lashed to the saddle; and finally the yarn of a ghost of a crazy prospector who drove back and forth on the road to Ajo three equally ghostly dromedaries with packs laden with gold nuggets.

The camel drivers remained in the Southwest the rest of their lives. Greek George, some time in the '70s, killed a man in New Mexico, and, rather than be captured, committed suicide. Hi Jolly for years followed the life of a prospector, outlived most of his charges, and, a grizzled old man, died in 1902, at Tyson's Wells, Arizona.





PUEBLO WAR CAPTAIN
Photograph Furnished by E. L. Graves

CHAPTER XI

THE VENGEANCE OF COCHISE

T will be remembered that in telling of the capture of Inez Gonzales, mention was made of other women who were stolen by her captors—who were Pinalino Apaches—at the same time. One of these women was Jesus Salvador, the maid of Mercedes Pacheco, Inez's aunt. Jesus was compelled by one of the Pinalinos to become his wife, and, as a result of this union, there was born to the woman a child who was afterwards known as Mickey Free.

Following several years of slavery and suffering, the captive, taking her child with her, escaped to the friendly Pimas, who treated her with great kindness, escorting her to Mexican friends at Tucson. Later, in 1860, when Mickey Free was six years old, she became the housekeeper of one John Ward, who lived in the Valley of the Sonoita, about twelve miles below Fort Buchanan. One morning in October, 1860, when Ward was away from home, while the boy was trying to catch a burro, his pursuit led him into the arms of a dozen Coyotero Apaches, who, planning to raid the ranch, were hiding in the rocks. Now, learning that there were no men about the place, the Apaches boldly broke open the corral, stole horses and oxen, and,

in spite of the mother's screams, rode away with the boy. When Ward returned, he took up the trail of the Indians and followed it to the San Pedro River. As the Chiracahuas, under Cochise, lived in the Dragoon Mountains east of the San Pedro, Ward reached the hasty conclusion that the depredation had been committed by them, and, riding post haste to Fort Buchanan, reported the outrage to the commanding officer, Colonel Morrison.

Cochise at that time was perhaps the most prominent Apache chief in Arizona. For the ten years following 1846, as an ally of Mangas Colorado, he had waged intermittent warfare against the advance of the soldiers, but in 1856, apparently convinced of the futility of attempting further combat with the United States, announced himself as the white man's friend, and later made a peace compact with the officials of the Butterfield stage line allowing them to build a station in the heart of his country, and supplying them with hay.

Colonel Morrison detailed Lieut. George N. Bascom, fresh from West Point, to take twelve men, including Sergt. R. F. Bernard, to visit Apache Pass, see Cochise and try to induce him to undertake the return of the boy. Never was a selection more unfortunately made. Bascom was everything a man should not be to successfully perform such a mission. Naturally overbearing and conceited, he had no knowledge whatever of Indian diplomacy, nor was he even endowed with good

common sense, and regarded the powerful Cochise as simply a dirty Indian to be treated summarily and with contempt. When Bascom and his men reached the pass Cochise met him unhesitatingly, and when Bascom bluntly announced that he wanted Cochise to at once give back the stolen boy, the chief truthfully said that he knew nothing about the child, but would make an immediate investigation, and if any of his people had the boy he would see that he was returned. This did not at all come up to what Bascom wanted. He had come to recover the child, and he had no notion of allowing a lot of filthy Indians to either deceive him or put him off. He gave an ultimatum that Cochise should make his investigation immediately and report to him at a place two miles from the stage station where he planned to make his camp.

The next day, in all good faith, Cochise came to the camp, bringing with him his brother and two nephews, and told Bascom that the abductors evidently belonged to another tribe. He further said he would be glad to help locate them. However, while he was still talking, the lieutenant abruptly announced that they were his prisoners, and had them put under guard in a Sibley tent. Not contenting himself with the folly of having arrested the most warlike chief in Arizona without cause, he completed his asininity by placing guards over them who had no cartridges in their rifles.

Every Chiricahua carries a reserve knife in an

under belt of his scanty costume. As soon as it was dark, Cochise cut his way out. With fixed bayonets, the guards were able to stop all the Indians but Cochise who, with his great strength, thrust back guard and rifle, and though he had received a wound in the knee, escaped to the rocks with the Apache war-cry on his lips.

Bascom, fearing an attack, returned to the stage station, and on the way picked up three more Apaches who were returning from Mexico. Soon after daylight Cochise appeared just out of rifle range and haughtily demanded his relatives, which request Bascom refused. The chieftain disappeared and later that day captured two Americans named Jordan and Lyons, and afterwards took the station-keeper Wallace, who was on most friendly terms with both Cochise and his warriors. Indians led their captives within hailing distance, where the white men advised Bascom that the Indians would exchange them for the Apache captives, and had threatened them with torture if the exchange were not granted. To this request, accompanied by an appeal from Sergeant Bernard, who appreciated how relentlessly Cochise would carry out his threat, with unbelievable cold-bloodedness this monstrous lieutenant refused, and entrenched himself and his men behind the rocky wall of the stage station. At a tense moment Lyons suddenly broke from his captors, and, running to the wall to join the Americans, was shot by one of the soldiers who thought him an attacking Indian. To add to this horror, a mounted

Apache suddenly cast his riata over Wallace's head, and, beating his pony into a dead run, dragged this unfortunate person to death.

At last thoroughly frightened, Bascom led a retreat. As the soldiers passed through Sulphur Springs Valley they saw before them, hanging to a tree, the ghastly bodies of the three Americans. To show that a white man and an officer could be as cold-blooded as an Apache, Bascom then hanged his six prisoners, and in that act precipitated the bloodiest Indian war of Arizona's history.

That night at the Chiricahua's war-dance, following an ancient tribal custom, Cochise threw down his red turban with vows of vengeance against the whites, and from peak to peak, along the mountain range through the darkness shone signal fires summoning the warriors to a bloody campaign of revenge.

Only too well did Cochise keep his promise. Ranches and mines were raided, houses were burned, prospectors and settlers were tortured and murdered. A hundred stories could be told of heroic defenses made by settlers against the red demons—tales like that of the six men of "Free" Thompson's party who, armed with modern rifles and plenty of ammunition, withstood four hundred warriors under Cochise and Mangas Colorado for three days. But though they killed one hundred and thirty-five of the Indians, they themselves were finally slain. Still the raids kept on until practically every mine and rancho on the San

Pedro, the Sonoita and the Santa Cruz was left deserted and desolate, a feeding ground for the coyote and buzzard.

The boy, Mickey Free, whose being caused all this unnecessary bloodshed, grew up among the Coyoteros as untruthful and unprincipled and as worthless a vagabond as is often seen. With long tawny hair, his appearance was as repulsive as his character was unlovely. Though utterly unprincipled, he had wonderful ability in following a trail and, when grown, was occasionally used as a scout by the soldiers. He died on the Fort Apache Reservation, in 1913, at the age of seventy-seven.

CHAPTER XII

THE CIVIL WAR

Gadsden Purchase prior to the Civil War, being for the most part from the South, were not only ready but eager to make their section a part of the Confederacy. While the possession of the Southwestern deserts, with the pestiferous Apaches thrown in as an inalienable hereditament, would be of no vast value to the South, yet the possession of that amount of territory might be impressive to European nations, so it seems to have been considered worth while as a "pickup." Besides, the country itself would have some value as a highway over which troops might march to California.

Some time in 1861 a convention was held at Tucson declaring Arizona Confederate country; in August, Granville H. Oury was elected by citizens of Tucson as delegate to the Southern Congress. In March, 1861, a convention was also held in Mesilla, which called itself a "Convention of the people of Arizona," presumably, like the Tucson meeting, representing the southern part of New Mexico, from its eastern border to the Rio Colorado. One of the Mesilla resolutions was: "We will not recognize the present black Republican

administration, and we will resist any officers appointed to the Territory by said administration with whatever means in our power."

Most of the army officers, like a majority of the settlers, were Southerners and took the first opportunity of leaving their commands to join the Confederate army, though the enlisted men, on the contrary, for the most part remained firm in their allegiance to the Union.

The military posts at Breckenridge, Mojave and Buchanan were all abandoned early in the war, the order for such action coming to Buchanan from Maj. Gen. Isaac Lynde in June, 1861. It is said that there was a large amount of stores at Buchanan which had been ordered there earlier by the secretary of war in the expectation that afterwards it would fall into the hands of the new Confederacy, which it was felt would inevitably be formed. However, be that as it may, the officers in charge of the post, Lieutenant Moore of the dragoons and Lieutenant Lord of the infantry. left little of value behind. The field pieces were spiked and buried, and all supplies that could not be carried away were wrecked or burned. The troops were marched to Fort Craig, New Mexico, where they joined the Union forces.

Naturally, the settlers were very bitter over the abandonment of the post, and charged the local officers with cowardice and perfidy, but whatever odium was attached to their leaving the settlers without military protection against the Indians belonged to commanders higher up.

The Apaches watched the soldiers march away with grim complacency, believing that it was a sign of recognition that the Indians had proven themselves too strong to subdue, and therefore the whites had finally abandoned the country. Immediately they started in to finish their harvest of pillage and murder against the settlers. One of their first acts was to go to the Heintzelman mines where, in spite of the miners' guns, in a night attack, they succeeded in running off a hundred and forty-six horses and mules. At Tubac, so Hinton tells us, a score or so of Americans withstood two hundred attacking Chiricahuas under Cochise throughout one entire day, and that night, shielded by darkness, an express rider got through the Indian line and reached Tucson in safety. Under Grant Oury a relief party was organized, and twenty-five determined, well-armed men rode swiftly to Tubac, where, joining the beleaguered miners, they not only drove off the Apaches, but had the opportunity a little later of withstanding a party of Mexican bandits who came up from Sonora. The Mexicans fell back upon Tumacacori, where they murdered an old rancher whom even the Apaches had spared.

Having good cause to fear that the Chiricahuas would soon return in increased numbers, all of the whites, not only from Tubac, but from all of the mines and ranches in the southern part of present Arizona, made hasty flight to Tucson, while the Mexicans who did not accompany them fled to the settlements of Sonora.

Meanwhile in the Mesilla Valley, Maj. Isaac Lynde, the same man who had written the order to abandon Fort Buchanan, commander of the Union garrison at Fort Fillmore, with five hundred well disciplined men, allowed himself to be defeated by two hundred and fifty untrained and poorly armed Texans, commanded by Lieut. Col. John R. Baylor. Lynde withdrew his troops, and when Baylor overtook him, cravenly surrendered his entire command. It was a disgraceful affair. Later, for this cowardice or treachery, he was dismissed from the army.

Baylor reached Mesilla in July, 1861, and in a proclamation on August 1st organized the Territory of Arizona, which had its north boundary on the thirty-fourth parallel (which runs just north of the present town of Wickenburg) and extended entirely across present Arizona and New Mexico. He named Mesilla as the capital, with himself as military governor. Thereafter the Confederate Congress passed an enabling act for the Territory, which act was approved by Jefferson Davis, January 18, 1862, and on February 14th of the same year he issued the forming proclamation. Slavery, of course, was to be protected.

Early in 1862 a military organization, styled the Arizona Guards, with headquarters at Mesilla, was mustered in for the stated purpose of protecting the settlers against the Indians. In March of the same year Baylor wrote a letter to Captain Helm, commander, which, as a military order, it may well be hoped, is unique in American army annals,

and which made Baylor eligible to a place on the rolls of infamy along with Johnson and Glanton.

"Sir:—I learn from Lieutenant Colonel Jackson that the Indians have been at your post for the purpose of making a treaty. The Congress of the Confederate States has passed a law declaring extermination of all hostile Indians. You will therefore use all possible means to persuade the Apaches, or any other tribes, to come in for making peace; and when you get them together, kill all the grown Indians and make the children prisoners, and sell them to defray the expenses of killing the Indians.

"Buy whisky and such other goods as may be necessary for the Indians, and I will order vouchers given to cover the amount expended.

"Leave nothing undone to assure success and have a sufficient number of men around to allow no Indians to escape. Say nothing about your orders till the time arrives, and be cautious how you let the Mexicans know it. If you can't trust them, send to Captain Aycock at this place and he will send you thirty men from his company. Better use the Mexicans, if they can be trusted, as bringing troops from here might excite suspicion with the Indians.

"To your judgment I entrust this important matter, and look for success against these cursed pests who have already murdered over one hundred men in this Territory."

Later, Baylor, in one of his campaigns against the Indians, is said to have poisoned a sack of flour which killed fifty or sixty natives. When President Davis learned of this episode he promptly deprived him of his commission in the Confederate army and his title of governor of Arizona.

Early in 1862 a troop of Texan cavalry, numbering between one and two hundred, in command of Capt. S. Hunter, had started west, reaching Tucson February 28th, where it was given a most cordial welcome by the inhabitants.

The Confederates seem to have had some hopes that Sonora would forswear her allegiance to the Mexican Republic and join the new cause, and soon after Hunter arrived at Tucson, Colonel Reilly, with an escort of twenty men under Lieutenant Tevis, was sent with a letter from General Sibley to Governor Pesquiera at Hermosillo; but other than arranging for the purchase of supplies, nothing came of it.

On March 3d, Hunter, with the rest of his command, proceeded to the Pima villages, where he confiscated fifteen hundred sacks of wheat, which a trader, A. M. White, who operated a flour mill in the village, had bought from the Indians for the use of the Union soldiers then at Fort Yuma. Instead of destroying the wheat, Hunter returned it to the Indians. It was reported, but erroneously, however, that a large wagon train was on its way eastward for the wheat, and while waiting for its arrival Hunter's pickets noticed, through the chaparral, the approach of a squad of mounted Unionists—nine members of the First California Cavalry, under Captain McCleave.

The Confederate pickets surprised and captured them without firing a gun, and McCleave, together with the trader White, was sent in charge of Lieut. Jack Swilling to Baylor.

Hunter then dispatched a squad of men westward to destroy supplies of hay that had been deposited at several stations on the old Butterfield stage line for use of the Union army advancing from California. This squad reached a point fifty miles from the Colorado, the farthest point westward penetrated by the Confederacy.

At this time the Union forces in southern California consisted for the most part of volunteers under the command of Col. James H. Carleton of the First California Cavalry. The main body of this army had left Los Angeles and concentrated at Fort Yuma in April, where it consisted of ten companies of First California Infantry directly commanded by Colonel Carleton, five troops of First California Cavalry under Lieut. Col. E. E. Eyre, and field artillery with four brass field pieces under Lieut. John B. Shinn.

Following the McCleave party, a stronger force was sent east from Yuma consisting of one company of infantry, a part of a company of cavalry and two small howitzers, with Capt. William P. Calloway in command. The party passed the Pima villages, and, on April 15, 1862, they were apprised by their Indian scouts that a force of Confederate cavalry was just ahead of them, which was Hunter's command returning to Tucson. A detachment of cavalry under Lieutenant Barrett

was ordered to make a wide detour and strike the enemy on the flank, by which time it was thought the main column would be there to make a simultaneous attack from the rear. However, Barrett and his men traveled faster than was anticipated, and reaching its objective at Picacho Pass, made a sharp attack before the supporting column arrived. In the engagement Barrett and two of his men were killed and three wounded. Two of the Confederates also were wounded and three taken prisoners. This skirmish was the only engagement of any kind between the Federals and the Confederates in what is now Arizona.

Although the force led by Calloway was much superior to Hunter's, he fell back to Stanwick Stage Station, eighty miles from Yuma, where he joined the advancing California column under Lieutenant Colonel West. When this army reached the Pima villages, defensive earthworks were thrown up around White's mill, and, in honor of the officer who had been killed at Picacho, named Fort Barrett. A force under Lieutenant Colonel Eyre was sent to occupy Fort Breckenridge, and the main column under Lieutenant Colonel West, moved forward to Tucson, where it arrived April 20th.

Buchanan was also occupied and the name Breckenridge changed to Fort Stanford.

Before the Unionists had reached Tucson, Hunter had already passed through the town and was on his way to Mesilla, together with a number of the most prominent Tucson Confederates. When the command reached Dragoon Springs it was set upon by a large force of Apaches, who evidently thought that the soldiers must be given another decisive lesson. Four of Hunter's men were killed and thirty-five mules and twenty horses lost. Soon after this Carleton arrived at Tucson, where he established his headquarters. En route he stopped at the Pima villages and was so impressed by the appearance of the Indians that he recommended that a hundred muskets be given them as a defense against the Apaches.

Tucson at that time was the rendezvous for as malodorous a lot of criminals and desperadoes fugitives from both Texas and California—as is often found in one place. Carleton at once proclaimed martial law, and announced himself military governor. Then he proceeded to clean up the town, so, as he said, "When a man does have his throat cut, his house robbed or his field ravaged, he may at least have the consolation of knowing that there is some law that will reach him who did the injury." As a start he sent nine of the "cutthroats, gamblers and loafers" to Yuma for imprisonment. This action won him much praise, more than another official act which he performed soon afterwards, when he caused the arrest for treason of Sylvester Mowry, principal owner of the Mowry mine and delegate to the Confederate Congress. The arrest was made upon information furnished by the metallurgist at the Mowry Mowry was brought to Tucson and tried by court martial, headed by Lieutenant Colonel West. He was found guilty of having had treasonable correspondence with well known Secessionists, and was taken to Yuma for confinement. The imprisonment seems to have been only nominal, and after six months, his case being investigated by General Wright, commander of the Pacific Department, he was released.

As a sidelight on Tucson life during those days we learn from Carleton's orders that "every gambling house in Tucson must pay a tax of a hundred dollars a month and every keeper of a bar must pay a similar amount."

In June, Carleton was advanced to the rank of brigadier general. That same month he started Lieutenant Colonel Eyre eastward with a hundred and forty cavalrymen to join General Canby's Union forces in New Mexico. At Dragoon Springs they were met by about a hundred Apaches who insisted upon a peace talk and tobacco. While that was going on, three soldiers were ambushed and killed. The murderers, though pursued, were not captured.

On July 20th, under Carleton's orders, Colonel West, with five companies of infantry, started for New Mexico, and two days later was followed by Lieutenant Shinn's battery with two companies of infantry, and, after another two days' wait, four more companies proceeded eastward under Lieutenant Colonel Rigg. As a vanguard went Capt. Thomas Roberts with Company E, First California Infantry, who, on reaching Apache Pass, was intercepted by Chiricahuas, whereupon followed the most serious battle ever fought in Arizona between Americans and Indians.

Cochise, with rancor still eating into his heart from Lieutenant Bascom's insults, had never stopped his bloody business of revenge, and when Mangas Colorado wanted his help to drive out a hundred and forty miners from Pinos Altos, Cochise gave his consent provisional upon the great Mimbres coming over to help him wipe out the American soldiers.

Mangas had fully as bitter hatred against the whites as Cochise, for the miners at Santa Rita del Cobre, discovering the chief in a plot to kill them, had tied him to a tree and whipped him. As a result of all this there were five hundred Chiricahuas and two hundred Mimbres waiting at Apache Pass to dispute the passage of the American troops.

Captain Roberts, wholly unsuspecting an attack, entered the defile without making any preliminary reconnoissance whatsoever, and was two-thirds of the way through when a terrific volley of musket fire was directed at his men from Apaches hidden behind rocks and trees on the towering canyon sides. Cremony says, "Every tree concealed an armed warrior, and each warrior boasted his rifle, six-shooter and knife." The soldiers fired in return, but in their exposed position, shooting at an enemy whom they could not see, made retreat the only alternative of extermination. The troops retired in good order and re-formed at the mouth of the canyon.

As the men had marched forty miles without water, it was absolutely necessary that they reach the spring in the heart of the pass. There was an

overland stage station house made of stone about six hundred yards from the spring, and this Captain Roberts made his objective. On the high hills overlooking the spring the Indians had built stone breastworks from which they kept up an everincreasing fire at the again advancing soldiers. After some bungling on the part of the artillerymen, the howitzers were put into action. The Apaches were quite accustomed to rifles by this time, but these belching wagons that hurled great fire balls which, exploding, could kill a dozen men, were too much for their nerves. They abandoned their fortifications and fled pellmell in all directions. To again quote Cremony:

"In this fight Roberts had two men killed and three men wounded, and I afterwards learned from a prominent Apache who was present in the engagement that sixty-three warriors were killed outright by the shells, while only three perished from musketry fire. The Indian said, 'We would have done well enough if you hadn't fired wagons at us.'"

The next day, with Cremony's cavalry added to the white men's force, the Apaches again sought to engage the soldiers, but after the howitzers once more shelled the hills, Cremony's rough riders charged straight at them, and a few minutes later the landscape was covered with fleeing, thoroughly frightened Indians. This time the Chiricahuas had had enough and did not return.

Two miles beyond Apache Springs the soldiers found the remains of nine miners from Pinos Altos whom the Apaches had murdered, one of which had been burned at the stake.

It is said that at this time, for fourteen miles on either side of the pass, the bones of slain oxen, horses and mules and the wreckage of wagons were so thick that one could almost travel the entire distance without setting foot upon the ground, and the graves that lined the road gave mute testimony as to what had become of the people to whom the caravans belonged.

When he learned of the battle, General Carleton established a military post in Apache Pass which he called Fort Bowie, and garrisoned it with a hundred men of the Fifth Infantry and thirteen men of the First Cavalry.

In September, 1862, Carleton succeeded General Canby as commander of the Department of New Mexico, and Maj. Davis Fergusson was put in charge of the soldiers that were left in Arizona.

CHAPTER XIII

PROSPECTING PARTIES IN CIVIL WAR TIMES

HE principal occupations of the citizens of Arizona during Civil War days were fighting, mining and gambling. Sometimes these vocations were conducted separately, usually the three went together. With hostile Apaches scattered from the eastern border nearly to the Colorado, prospecting, if engaged in by small groups of men, was apt to be an invitation to sudden death; nevertheless there were bold spirits who were so insistent in their quest for the Golden Fleece that even the menace of the Toutos or Coyoteros could not deter them. The most important of the mining expeditions which prospected in Arizona during this period was known as the Walker party and was notable not only for the fact that its members were the first men to systematically prospect for gold in the central part of the Territory, but also for the reason that their explorations had an important bearing upon the location of Arizona's first capital.

In 1862 "Capt." Joseph Walker came to the Southwest from Colorado at the head of a party of forty adventurers. The men were well armed, and although they stated that their one purpose in the

country was to search for valuable minerals, the Federal authorities watched them closely, evidently fearing that they were really Secessionists who were planning some coup to aid the Confederate cause.

The story of their long journey through regions heretofore unknown, the hardships they endured, the many perils they overcame is too extended to be recorded here. Space, however, must be claimed to mention the capture of Mangas Colorado through their aid and the death of the great chief at their camp. There have been many conflicting stories told of the event, but the narrative of D. E. Conner, the historian of the expedition, bears the marks of truth. When in February, 1863, they were camped at Fort McLean, fifteen miles southwest of Silver City, Walker was told by a Mexican that Mangas Colorado, with five hundred Apaches, was on the west side of the Cordilleras not far from Pinos Altos. The old chief and his warriors had been dogging the steps of the party all winter, ambushing them at water holes, and otherwise harassing them, so Walker boldly decided to try to capture Mangas and hold him as a guarantee of good behavior by his followers. A half a company of California volunteers, with Capt. Ed Shirland, chanced to visit the Walker camp that day, and when Shirland heard of the plan to get Mangas he promptly agreed to take an active part.

In order to avoid having their intention conveyed to the old chief by smoke signals from

Apaches near the camp, about half of the Walker party and half of the soldiers slipped away on their mission before daylight. At Pinos Altos, just before the summit was reached, Walker picked up the ubiquitous Jack Swilling—whom the party had chanced upon at Mesilla—and put him in charge of an advanced guard, while he with the rest of his men and the soldiers were to hide themselves in the old buildings of the camp and the chaparral. Swilling, with his handful of men, walked up the trail leading to the summit. To quote Conner:

"All was silent; not a human being was seen. Suddenly Swilling issued a warwhoop that might have made an Apache ashamed of himself. There was a short delay when Mangas, a tremendously big man, with over a dozen Indians for a body guard, was seen in the distance walking towards us. . . Jack left us and walked to meet Mangas. . . . Swilling, though six feet tall, looked like a boy beside the chief." At a sign from Swilling, his companions covered Mangas and his bodyguard with their rifles. The other Indians were sent back, but the chief was forced to accompany his captors. As they led him over the brow of the hill, the soldiers suddenly came out from their hiding places, "disgusting Mangas beyond measure."

Although momentarily expecting pursuit, the party got the old chief over the fifteen miles to the Walker camp without molestation. The prisoner was dressed in a cheap, checkered shirt

and ordinary overalls cut off at the knees. In dignified silence he strode among his white captors, towering head and shoulders above them. That night the chief slept on the ground near the camp fire. Conner, who was on guard, noticed, about nine o'clock, that the soldiers were "doing something to Mangas," but quit when Conner came to the fire. Afterwards, observing them from the darkness, Conner saw them heat their bayonets and apply them to the Indian's feet and legs. At this the old chief rose on his elbow, crying out that he was no child, to be played with. Thereupon the two soldiers fired at the chief with their Minie muskets, and followed that with two more shots from their navy revolvers. "Mangas fell back into the same position he had occupied and never moved."

From the camp where the great chief was slain the Walker party journeyed over the mountains prospecting en route. Ultimately they reached Tucson, from which point they went, first to the Pima villages and then north, through mountainous country, to the headwaters of the Hassayampa, near the present town of Prescott, where they located, thoroughly prospecting the hills and valleys of the region, finding gold in many places.

Another group of miners, which about that same time entered central Arizona, was known as the Weaver party, from Pauline Weaver, one of its members. The party, which seems to have consisted of eleven men, left Fort Yuma early in April of 1863, journeying up the Colorado to Bill

Williams Fork and continuing along that stream fifty miles or so; then, leaving the fork, it reached what is now known as Antelope Mountain, and, after finding gold in a creek bed, continued prospecting up to the top of the peak, where it found the richest surface diggings ever discovered in the State. On one day three of the men, scratching around in the gravel with their butcher knives—as they tell it—obtained over \$1,800 in nuggets.

Word of the strike was carried to Maricopa Wells, a station on the old Butterfield stage line, and there was an immediate rush of miners to the Weaver district, as it was then called, who later mingled with members of the Walker party and shared their prosperity.

At Lynx Creek one nugget was found which was worth \$900. Rich finds were also made on the Hassayampa and Granite Creek. Later, placer mining gave way to the working of lodes, a detailed account of which will be given in a subsequent chapter.

CHAPTER XIV

ARIZONA A POLITICAL ENTITY

HERE is no more romantic story in all of Arizona's history than is the one which tells of its birth as one of the commonwealths of the nation. After many petitions by mass meetings and conventions and many a personal appeal from such energetic citizens as Poston and Mowry for separate government, finally, in the winter of 1862-63, Congress passed the enabling act of the Territory of Arizona, which was approved by President Lincoln, February 24, 1863.

This, it will be remembered, was not the first time that territorial honors were conferred upon the people of the section, for on February 14, 1862, Jefferson Davis, by proclamation, had done his best to give territorial being to Arizona, but where the Arizona formed by the Confederacy included the southern portion of both New Mexico and Arizona, the Arizona of the Federal Government, save that it included a section of lower Nevada, had boundaries much the same as they are now.

There were cogent reasons given at the time why, after its many years of procrastination, Congress suddenly awoke to this section's needs. One was that Arizona could be made into a strong Union State, which would be valuable to have lying between Texas and California; another, that every territory must have a set of officials appointed by the President, and it happened at this time that there were a number of "good men and true" in Washington who were not at all averse to accepting just the kind of offices the forming of the territory would create. As one of these territorial offices was destined to be filled by none other than our old friend Colonel Poston, his account of the way it all happened may be not without interest.

"At a meeting in Congress in December, 1862, I returned to Washington, made friends with Lincoln, and proposed the organization of the Territory of Arizona. Oury . . . was in Richmond cooling his heels in the ante-chamber of the Confederate Congress without gaining admission as delegate from Arizona. Mowry was a prisoner in Yuma, cooling his head from the political fever which afflicted it. . . . There was no other person in Washington, save General Heintzelman, who took any interest in Arizona affairs. . . . Many didn't even know where Arizona was.

"Old Ben Wade, chairman of the Committee on Territories, took a lively and bold interest in the organization of the Territory, and Ashley, chairman of the committee in the House, told me how to accomplish the object. He said there were a number of the members of the expiring Congress who had been defeated in their own districts for the next term and wanted to go west and offer their political services to the 'galoots,' and if they could be grouped and a satisfactory slate made, they would have influence enough to carry the bill through Congress. Consequently an 'oyster supper' was organized, to which the lame ducks were invited, and then and there the Territory was virtually organized. So the slate was made and the bargain concluded, but towards the last it occurred to my obfusticated brain that my name did not appear on the slate. . . . I exclaimed, 'Gentlemen, what is to become of me?' Gurley politely replied, 'Oh, we'll make you Indian agent.' So the bill passed and Lincoln signed all the commissions, and the oyster supper was paid for, and we were all happy and Arizona was launched upon the political sea."

Poston was not a man to let undue accuracy of detail spoil a good story. If there were any lame ducks among the officials at the time they were appointed, an Arizona environment certainly had a remedial and restorative effect upon their infirmities, for, once entered upon their duties, they proved to be competent and conscientious officials. The original appointments, made in March, 1863, were as follows: Governor, John A. Gurley of Ohio: secretary, Richard C. McCormick of New York: chief justice, John N. Goodwin of Maine; associate justices, William T. Howell of Michigan and Joseph P. Allyn of Connecticut; district attorney. John Titus of Pennsylvania; marshal, Milton B. Duffield of California; Indian affairs, Charles D. Poston of Arizona.

However, many delays occurred before the

forming of the commonwealth actually took place. On August 18th, after a lingering illness, Governor Gurley died and John N. Goodwin was appointed in his place, and the chief justiceship was given to William F. Turner of Iowa. Then Titus resigned and Almon Gage of New York was made district attorney. Levi Bashford was appointed surveyor general.

Poston journeyed westward by the way of San Francisco, where he was joined by Duffield, and the two, accompanied by J. Ross Brown, a noted California writer, made a tour of the Territory before assuming their duties. Most of the other officials traveled overland by Government transportation from Fort Leavenworth. A most remarkable thing about this official journey was that when the party started it had no definite destination. Just where the new capital was to be located had been left to the territorial officials, and they were withholding their decision.

Tucson, as the most important town of the section, was believed to be wholly under Confederate influence and therefore undesirable. By the time the officials arrived at Santa Fe the reports of the gold strike in central Arizona reached them. The country in the vicinity of the gold camps was described as not only abounding in natural resources, but full of native beauty and with a splendid climate.

Many of the settlers that were occupying the region were former members of the California Column, and therefore Unionists. So the officials decided, at that time, to found the capital somewhere in this new section where it might be wholly American and with a citizenry loyal to Washington.

Accompanied by a military escort, the party resumed its westward way through north central New Mexico, and, on December 27, 1863, passed what they believed to be the one hundred and ninth degree of longitude, which was to be approximately the eastern border of Arizona. However, to be on the safe side, the party traveled two days more, and, at Navajo Springs, in what is now Apache County, made camp.

Here among the cedars, with the ground snowclad, the flag was raised and cheered, and the officials sworn in by the chief justice. Secretary Mc-Cormick then made a brief address and the governor read his proclamation, fixing the seat of government for the Territory, for the time being, at Fort Whipple, which, on December 21, 1863, had been established in the Little Chino Valley. By January 22d the officials had all reached the post and entered upon their duties. On May 18th the capital was moved to a site on Granite Creek, where, under towering pines and in sight of picturesque rolling hills and rugged mountains, the first rude administrative buildings were erected.

The settlement which grew up around the capitol was organized into a town on May 30th at a well attended meeting, and was named for the celebrated historian, Prescott.

The first election held in Arizona after its or-

ganization, July 18, 1864, was for delegate to Congress and for members to the Territorial Legislature. Poston, who was well known in the southern part of the Territory as well as in the north, was elected to represent the new commonwealth at Washington. The total votes cast were as follows: C. D. Poston, Unionist, 514; Charles Leib, Unionist, 226; William D. Brandshaw, Democrat, 66; William J. Berry, 48; S. Adams, 31.

It is interesting to note that Poston's bill for mileage in journeying to the nation's capitol was \$7,000. He went by the way of Panama, probably for the reason that there was no passenger service at the time around The Horn.

The nine councilmen elected included one lawyer, three farmers, one merchant, one printer and three miners.

In the "House" there were one lawyer, one farmer, two merchants, seven miners, one surveyor, one wheelwright, two mining engineers, one carpenter, one hotel keeper and one physician.

When the Legislature convened Coles Bashford, a Tucson attorney, was chosen president of the Council, and W. Claude Jones, also a member of Tucson's legal fraternity, elected speaker of the House.

It is not within the scope of this volume, even if space permitted, to make an extensive record of Arizona's political history, but simply mention such events as have special prominence by reason of their essential bearing on the development of the commonwealth or from their picturesqueness, so, while we refrain from mentioning the names of all of the distinguished gentlemen who served their State and nation in early Arizona days, we shall not attempt to apologize for devoting a paragraph to a story that illustrates the manners and minds of the State's pioneers. The anecdote was told by Judge Ed Wells of Prescott: "A sufficient state of cleanliness and the possession of garments of such purity as would be suitable and creditable to the high station he sought were the only requisites necessary" (to a candidate for office). "One of the chosen candidates" (for the Legislature) "was possessed of an ample fund of the former qualifications, but was found largely wanting in the latter, and it was discovered that his opponents in other localities had woven his shortcomings into political capital. A public meeting was called, . . . our candidate was taken to the creek, vigorously scrubbed, gorgeously robed with articles donated for the occasion, put astride a mule and sent forth to battle. He was elected by a large majority and served with distinction during the whole term."

The Territory was sadly in need of more and better roads, and the first Legislature gave licenses to men to construct toll roads and franchises to build ferries on the Colorado River. Endeavors were even made to induce railroad building.

Naturally, the Apache menace was ever in the minds of the Legislature, and they authorized the issue of \$100,000 in bonds to equip a body of militia to combat the savages. Unfortunately, how-

ever, the commission appointed to sell the bonds was unable to do so. The Territory finally secured four companies of local volunteers, as is shown in another chapter.

Arizona's first code of laws was prepared by Judge William T. Howell, who was appointed as a commissioner for that purpose by the governor, which code was adopted by the Legislature. The only school within the Territory at that time was one at the San Xavier Mission, where Padre Messaya instructed classes of Mexicans and Papagos. Recognizing the need of more schools, the Legislature recommended that appropriations be given to towns for maintaining schools where the number of children would warrant.

The Territory was divided into four counties, all of which were given Indian names—Pima, Yuma, Mojave and Yavapai.

Judge E. W. Wells of Prescott states that in 1863, as the necessary machinery for levying and collecting taxes had not as yet been put into motion, that each resident of the Prescott district placed a valuation on his property and paid taxes on the amount so assessed.

Attempts were made by the first Legislature to remove the capital, first to La Paz, then to Walnut Grove, and finally to a city—yet to be built—to be called "Aztlan," at a point within ten miles of the junction of the Rio Verde and Rio Salado. These various motions were defeated only by small majorities.

The second election within the new Territory

was held in September, 1864, at which ballots were again cast for members of the Territorial Legislature and delegate to Congress. The congressional candidates were as follows: J. N. Goodwin, C. D. Poston and Joseph P. Allyn, all Unionists. Goodwin was elected on a total vote of 707, against 260 for Poston and 381 for Allyn. It is notable that while Tucson was largely populated by southern sympathizers, that there was no Democratic congressional candidate nominated. Indeed, party politics continued to occupy a subordinate place in Arizona elections down to the '80s. The place of Goodwin, who resigned as governor to become delegate, was filled by the former secretary of the Territory, Richard McCormick, who thereafter was Arizona's chief executive to 1869.

The second Territorial Legislature, which convened December 6, 1865, was made up of eight councilmen and ten representatives.

In his message to the Legislature, Acting Governor McCormick (he had not yet received his formal appointment) urged the legislators to encourage the occupation of agriculture, and referred to the successful work of farmers upon the Verde, and at Walnut Grove and upon the Hassayampa. It did not seem to occur to him that farming could be successfully prosecuted on the deserts to the south.

Governor McCormick also suggested that it would be very desirable for Arizona to acquire the port of Libertad on the Gulf of California, and mentions that Prescott was the only one of the four towns that had taken advantage of the act of the first Legislature appropriating moneys for schools. The towns that had not lived up to their opportunities were Tucson, La Paz and Mojave.

He enjoined the strictest economy upon the lawmakers and called attention to the fact that the Howell code made provision that, whenever the discoverer of a mine located a claim for himself, he was required to locate an adjoining claim for the Territory. He stated that in the opinion of the attorney general of the Territory the provision was strictly legal.

The first act passed by the Legislature created, in the northwest corner of the Territory, the County of Pah-Ute. In the Territory's original form it included a portion of the southern end of Nevada. Later, when Arizona was cut down to its present boundaries Pah-Ute County was abolished, the lands it still retained going to Mojave.

A tax law was given to the Territory in which negroes as well as Indians were exempted from a \$3 poll tax.

A wife was given the right to hold in severalty any property which she possessed before marriage. The husband was given a similar right.

A census taken in 1866 gave the population of the Territory as follows:

Pima County	.2.115
Yavapai County	.1,612
Yuma County	. 810
Pah-Ute County	. 541
Mojave County	. 448

In the fall election, 1866, Poston for the third time was a candidate for delegate to Congress, his opponents being Coles Bashford and Samuel Adams. Bashford was elected, receiving 1,009 votes; Poston second, with 518; Adams third, with 168. It is reassuring to note in Governor McCormick's message to the third Legislature that there was the substantial balance in the territorial treasury of \$249.50, but in spite of this opulence the governor, with wise frugality, advised economy. Still the future looked bright to the executive, for he stated to his lawmakers that the Territory's lodes of gold ore "showed prominence and size" and silver mines below the Gila on the Colorado "show great wealth." He was also sure that the copper lodes on the Colorado were but an "earnest" of the importance which this metal would command later.

When the Legislature got down to work it prepared for "Big Business" which was soon expected by passing laws under which corporations might organize. Also, feeling that in many sections the citizen must be prepared to defend his person and family and possibly administer his own laws, it exempted from taxation arms and accourrements owned by any person for "private use."

The Legislature also authorized the attorney general to settle with William S. Oury for a hundred and five muskets and much ammunition belonging to the Territory, which Oury took to equip a company of the Arizona volunteers, but which arms and ammunition had mysteriously disap-

peared—in all of which, it developed, there was a story. It seemed that Governor Pesquiera of Sonora was to furnish the men if Oury furnished the arms, but instead of using the men so furnished to fight Arizona Apaches, the resourceful governor of Sonora took both the men and guns south across the border and used them against the Emperor Maximilian. According to Capt. M. G. Calderwood of the Arizona volunteers, who tells the story in Farish's most interesting "History of Arizona," a Mexican gentleman one evening asked him for permission to camp in the "Potrero" (Pete Kitchin's ranch) near by. Permission was granted, and behold! the next morning when the Arizona officers awoke the entire Calabasas plateau was covered with Governor Pesquiera's army and personal retinue, which had fled across the border about four jumps ahead of Maximilian's troopers.

Perhaps, owing to matters not wholly disassociated with the Monroe doctrine, Maximilian was persona non grata to the Arizona volunteers, who were, therefore, at all times ready to supply arms and ammunition to his adversaries. If Pesquiera took the guns back with him at this time they may have given him substantial aid, for soon thereafter he was again in command in Sonora.

In 1868 R. C. McCormick left the executive chair of the State to become its representative in Congress, making the fourth Republican in succession to fill that important office. He was continued as delegate until 1874, when he was followed by

Hiram S. Stephens, the first regularly elected Democrat sent by Arizona to Washington. Stephens' opponents were C. C. Bean, Republican, and John Smith, also a Republican.

Stephens was said to have given over \$25,000 to the gamblers of the Territory to bet on him, the gamblers to retain the winnings, but to return to Stephens the amount advanced. As the gamblers and their followers in the Territory seemed to be in sufficient numbers to hold a balance of power, Stephens was elected.

In 1876 he ran again, winning over W. H. Hardy, Republican, and Granville H. Oury, Democrat, by a small majority.

The fourth Arizona Legislature, held in 1867, moved the capital from Prescott to Tucson.

The sixth, in 1871, changed the county seat of Yuma County from the decaying city of La Paz to Arizona City, which in 1873 had its name rechristened, Yuma. Following the precedents established by the first Legislature, the seventh (1873) granted a divorce to no less a distinguished gentleman than the governor of the Territory, Anson P. K. Safford, from his wife, Jenny L. T. Safford.

The eighth Legislature (1875) resoluted that the capital should be permanently located at Tucson, but this did not interfere with the ninth, in 1877, blithely taking it back to Prescott again.

The tenth Legislature seemed to feel it incumbent upon itself to rectify all of the connubial mismatings of the Territory, for at one fell swoop it granted divorces to fifteen couples, including John J. Gosper, the secretary of the Territory, and his wife. Although these divorces were legal enough, the exercising of such powers by western territories seemed to have become something of a national scandal, for the forty-ninth Congress put a stop to it by national enactment.

John P. Hoyt, the fourth governor of Arizona, was a Hayes appointee who filled the office but a year, and was succeeded by John C. Fremont, whom Bancroft says was appointed merely that his chronic poverty might be relieved.

Fremont held office for three years after his appointment, made in 1878, during which time he was much in the East. The feeling that he neglected his official duties grew so strong and criticism against him so persistent that in 1881 he resigned, when the official chair was temporarily filled by Secretary Gosper.

Frederick A. Tritle was appointed in March, 1881, under President Arthur, to succeed Fremont. Coming from Virginia City, Nevada, he at once identified himself with all the interests of his new home, where a delightful personality, added to his marked ability as an executive, made him very popular.

In 1880, Granville H. Oury, who in the earlier days had been elected a delegate to the Confederate Congress, and in '76 had been defeated by Stephens as a delegate to the National Congress, was finally elected to that honor, winning over M. W. Stewart, Republican. In 1884 the balances again tipped and a Republican, C. C. Bean, was

given the congressional honor over C. P. Head by a very small majority.

From this time on, however, party allegiance rather than personal liking of the voter was the dominating influence at the polls, and each year Arizona's leaning toward the Democratic party became more pronounced. Marcus A. Smith, who had very ably filled the position as district attorney of Cochise County, in 1886 decisively defeated the former incumbent, C. C. Bean.

In 1888 Smith ran against Thomas F. Wilson, who, like Smith, was a prominent Tucson attorney, defeating him by a majority of 1,854 out of a total vote of 13,518.

As all governors in territories were appointed to their positions by the President, Arizona's first opportunity to have a Democratic executive came in 1885, when Cleveland appointed C. Meyer Zulick of New Jersey to the gubernatorial chair. It was near the close of his administration that the fifteenth Legislature moved the capital from Prescott to Phoenix. Scorning the humble stage line which went racketing over the mountains on the old Black Canyon Road between the two cities, the solons journeyed in state by train via Los Angeles.

The first thing that most of them did upon arriving at Phoenix was to purchase shining silk hats, which up to that time were as rare in the Territory as white blackbirds.

A short time before this Phoenix had built a commodious city hall, and it was used for a number of years as a capitol building.

When Harrison became President, in 1889, there was rejoicing in the Republican ranks over the thought that the Territory would soon have a governor of their own party who would distribute offlcial plums to the political deservers, but Zulick, feeling that it was incumbent upon him to see that the aforesaid plums went to nourish stalwart democracy, filled every office that was left to him to bestow with his own particular friends. The Republicans were in the majority in the Legislature and the Council refused to confirm Zulick's appointees and stayed in session until President Harrison had appointed Lewis Wolfley of Yavupal County as governor. When Wolfley arrived in Phoenix, however, he found that Zulick had assumed that the Legislature could not legally transnct business after sixty days from the date of its organization. The Republicans claimed that the intent of the congressional act under which they operated applied only to sixty working days. the end the Republicans had rather the best of It. as, being in charge of the funds, the Democratic office holders were given little but honors.

In Arizona's next governor, John N. Irwin, the Territory once more had an executive from without the State, and while Mr. Irwin was a gentleman of high character, he seemed to have little success in gaining the confidence of the local people and little liking for the position he occupied. He was succeeded by a prominent and able Arizonan, N. O. Murphy, who had made a most efficient secretary of state.

When Cleveland became President, in 1893, he appointed as governor L. C. Hughes, editor of the Tucson Star, who had more trouble with his own party, if possible, than with the Republicans. He was an advocate of prohibition and woman suffrage, which measures were far less popular in Arizona at that time than they are today.

Hughes' successor, the twelfth governor, was B. J. Franklin, a prominent Phoenix attorney. Like most of his predecessors, Franklin was a man of probity and ability, performing the acts of his office ably. Also, like some of his predecessors, there was more or less war between himself and the Legislature, an account of which need not be entered into here.

Myron H. McCord, the thirteenth governor, was an appointee of McKinley. In the spring of 1898 he rendered active assistance in organizing a regiment of Rough Riders for the Spanish-American War. In July, McKinley gave him a colonel's commission and placed him in command of an infantry regiment, which included three companies recruited in the Southwest.

When Governor McCord led his regiment to war his place was filled by N. O. Murphy, who thus became Arizona's executive for a second time. He in turn was succeeded by Col. Alex O. Brodie, a very different type of man from most of Arizona's officials. A West Point graduate, a lieutenant in General Crook's Indian campaign, and a lieutenant colonel in the Spanish-American War, his whole trend of mind was military, and was

influenced not at all by political expediency. During his administration a woman suffrage bill was passed by both houses of the Legislature, which he vetoed.

Joseph E. Kibbey, Arizona's sixteenth governor, was an appointee of President Roosevelt, and entered upon his duties with the prestige given him by a high reputation attained as a member of Arizona's Supreme Court. An authority on irrigation law, his decision in a famous Salt River Valley case has been accepted as a basis for all subsequent decisions in Arizona.

It has been rather the usual thing for Arizona's governors and legislatures to be antagonistic, but never had conflicts between the executive chamber and the halls of the lawmakers been warmer than those waged during the Kibbey administration; the governor's positive character and fearless actions making him enemies within his own party quite as often as in the Democratic ranks. Governor Brodie had protested against the extremely low assessments of mines, and Kibbey vigorously continued the agitation. He also strongly opposed the rather usual practice of over-stocking legislative halls with clerks. The twenty-fifth Legislative Assembly was largely Democratic, and bitterly hostile to the governor. It abolished the Arizona Rangers, which organization Kibbey favored, and did away with the position of territorial examiner, that office being filled by a Kibbey appointee.

Although as early as 1895 Governor Hughes and other "advanced reformers" believed that the time

had arrived when Arizona should renounce gambling as one of its reputable and legal amusements, it was not until the beginning of the Kibbey administration that the civic conscience of the State was sufficiently awakened to abolish the practice.

In 1905 Tucson prohibited games of chance in the vicinity of saloons, and the same year the Democratic party in Phoenix declared against licensing games anywhere.

Although the city Democratic ticket was defeated, a year later the Republican convention, as part of its platform, agreed, if successful at the polls, to submit the question of gambling to the people. The Republicans were given the chance to carry out their promise, and when the vote was taken a majority of the ballots were cast against the games of chance. After the city council, in compliance with this expression of public opinion, abolished the games, the gamblers opened a place just east of the city. However, the handwriting against them was on the wall, and the twenty-fourth Legislature the next spring (1907) abolished gambling in the State.

Many of the pioneers saw disaster in the act. A foreman on a large public work complained bitterly to us about it. "It is the ruination of my men," he said, "this stopping of the games. Last year when you gave a man a check, he'd go to Phoenix, blow it all in in twenty-four hours and be back on the job not much worse than when he went in. Now that he can't lose his money at faro, he has to stay and drink it up. It takes him a

week, and when he comes back he's a wreck. They ought to have cut out the booze, and let the gambling stay." But in spite of old-time prejudice there was practically no criticism from any one when first the cities and then the State prohibited women and minors from entering a drinking saloon. Two years later the twenty-fifth Legislature enacted a direct primary law.

The governor's enemies became so persistent in their antagonism of him that Kibbey was finally retired in 1909, and Judge Richard E. Sloan, also an Arizona jurist of high ability, and a personal friend of Kibbey, was appointed in his place.

From 1886 to 1906 the citizens of Arizona had a most persistent and almost irradicable habit of sending Marcus Aurelius Smith to Congress. Smith was a forceful speaker and a wonderful campaigner, and from '86 to '94 was returned to Washington with the inevitableness of sunrise. In '94, however, he was not even a nominee of his party, and N. O. Murphy, Republican, won against John C. Herndon, Democrat, and W. O. O'Neill, Populist. In 1896, Smith was again elected, and, after a vacation of two years following 1898, when Col. J. S. Wilson represented the Territory, Marcus went back to the old job for two years more. Following this term, in 1902, Wilson was again delegate until 1904, when Smith was returned for two more terms. In 1908, Ralph H. Cameron, the Republican nominee, made a most efficient campaign, beating Smith by 708 votes.

As a delegate from the Territory had no vote

in Congress, during the early years Arizona's representative could naturally have but little influence on National legislation, and all the delegates from Arizona during these days made statehood the one paramount boon to be obtained for their commonwealth. That Arizona should "blaze forth a new star in the galaxy of States" was the slogan of every congressional campaign at home and the Holy Grail of every delegate at Washington.

In 1892, Smith succeeded in getting a bill, with a complete constitution attached, through the House, but when it reached the Senate it was killed in committee. A second bill managed to reach the upper House a year later, but, like its predecessor, it was quietly chloroformed.

Republican Delegate Murphy tried his luck with a statehood bill in 1895, but succeeded no better than Smith, and when Delegate Wilson, in 1899, with Democratic bait on his hook, went fishing for the statehood trout, his creel was as empty at the end of his term as had been those who had gone before him.

In 1902 a bill passed the House admitting Oklahoma, New Mexico and Arizona, but when it reached the Senate it was bitterly opposed by a faction headed by Senator Beveridge, who later that same year made a tour of inspection of the Southwest with three other members of the senatorial Committee on Statehood. Wishing to do the job thoroughly, the committee spent three entire days in the State, and if that time was a little short in which to notice Arizona's really excellent

schools, its abundant churches, the low rate of illiteracy of its inhabitants, its well-built irrigating canals, its green alfalfa fields and rich mines, it gave ample time to visit its open gambling halls and accept them as a standard of Arizona's citizenship. An hour spent in looking out of the car window at the cactus-covered desert was time enough and to spare to prove the State's agricultural impossibilities. When the committee returned to Washington it reported that there might be virtue enough in Arizona to admit it to statehood if yoked to the modicum of virtue to be found in New Mexico, but there was far too little of civic excellence in either commonwealth for either to attempt the statehood portals alone.

In the fall of 1903, William Randolph Hearst and Democratic confrères visited Arizona and found no sign of moral degeneracy in the fact that Arizona would, if given statehood, probably send two Democratic senators to Washington.

In 1904, Representative Hamilton, chairman of the Committee on Territories, put a bill through the House linking Arizona in statehood with New Mexico, performing the act in spite of the vehement protests of Arizona's delegate, who pointed out that, in case of jointure, Arizona, which was largely American, would be wholly dominated by the greater number of voters in New Mexico, who were largely composed of Spanish-Americans. When the bill went to the upper House, Senator Foraker, who appreciated the justness of Arizona's desire to be a separate commonwealth, succeeded in hav-

ing the bill amended so as to permit each Territory to vote on the proposed measure. The House, however, refused to accept the amendment, and for that year the matter was a closed incident.

Two years later, in January, 1906, the House again passed a joint statehood bill wherein Arizona and New Mexico were to become a State under the name, "Arizona." Senator Foraker for a second time insisted that the two territories should first be allowed to vote on the proposed action, and the House this time, as well as the Senate, accepted this amendment.

The ballot on statehood was taken at the regular fall election in November, 1906. Arizona cast 3,141 votes for joint statehood and 16,265 against it. C. F. Ainsworth, who ran as a joint statehood candidate for Congress, received 508 votes, with 11,101 for Smith and 8,909 for Cooper, Republican. In New Mexico, joint statehood carried by a vote of 26,195 for and 14,735 against.

In October, 1909, while visiting Arizona, President Taft announced publicly his approval of Arizona's desire for separate statehood, but warned the people of the Territory against a freakish constitution like that of Oklahoma, especially condemning the initiative, referendum and recall. A bill granting separate statehood to Arizona and New Mexico passed both the House and Senate in June, 1910.

The election of delegates to the constitutional convention was held September 12, 1910, and forty-one Democrats and eleven Republicans were chosen for that important body. The delegates were: Democrats-Apache County, Fred T. Colter: Cochise County, E. E. Ellinwood, Thomas Feeney, G. H. Bolan, A. F. Parsons, R. B. Sims, P. F. Connelly, E. A. Tovrea, D. M. Cunningham, C. M. Roberts, S. B. Bradner; Gila County, Alfred Kinney, George W. P. Hunt, J. J. Keegan, Jacob Weinberger: Graham County, Lamar Cobb, Mit Simms, A. M. Tuthill, A. R. Lvnch, W. T. Webb; Maricopa County, A. C. Baker, F. A. Jones, Alfred Franklin, Lysander Cassidy, James E. Crutchfield, Sidney P. Osborn, Orrin Standage, B. B. Moeur, John P. Orme; Mohave County, Henry Lovin; Navajo County, William Morgan; Pinal County, E. W. Coker, Thomas N. Wills; Yavapai County, H. R. Wood, M. Goldwater, M. G. Cunniff, Albert M. Jones, A. A. Moore: Yuma County, Mulford Winsor, Fred L. Ingraham, E. L. Short. Republicans-Coconino County, C. C. Hutchinson, Edward M. Doe; Gila County, John Langdon; Navajo County, James Scott; Pima County, Samuel N. Kingan, William F. Cooper, Carlos C. Jacome, George Pusch, James C. White; Santa Cruz County, Bracey Curtis; Yavapai County, Ed W. Wells.

George W. P. Hunt was elected president of the body. It was distinctively a radical organization, and in spite of President Taft's warning, not only were the initiative, referendum and recall measures incorporated in the constitution, but many other radical features. The initiative enactment provided that 10 per cent of the electors might propose a measure, and 15 per cent could propose an

amendment to the constitution. But 5 per cent of the electors were required to call for the referendum of a measure passed by the Legislature. The governor could not veto initiative or referendum measures approved by a majority of the electors. Any public officer could be recalled upon the filing of a petition whose signers numbered 25 per cent of the voters at the last election. A direct primary law was re-enacted. An advisory vote as to choice of United States senators by the people to the Legislature was also provided for. A corporation commission was created and given large powers, and the rights of labor zealously guarded.

The constitution in its final form was adopted by the convention by a vote of 40 to 12, but one Republican voting with the majority, and when it was submitted to the people, February 9, 1911, it was ratified by a vote of 12,187 for and 3,302 against it.

When the Flood statehood resolution reached President Taft, true to his previous declaration, he promptly vetoed it, principally for the reason that the constitution provided for the recall of judges.

In August, a resolution granting separate statehood to Arizona was approved by Taft, with the provision that the recall of judges should be stricken out of the constitution by a vote of the people of the State.

An election was called for December 12, 1911, at which time congressional and State officers were also voted for. Those elected included, for delegate to Congress, Carl Hayden, sheriff of Maricopa

County; for governor, George W. P. Hunt, president of the constitutional convention, and an advisory vote to the Legislature for United States senators gave preferment to Marcus A. Smith, for many years delegate to the House of Representatives, and Henry F. Ashurst, prominent in Arizona politics. All were Democrats.

As there was no other way out of it, in response to President Taft's demand that the recall of judges be stricken out of the constitution, the citizens of the State voted in compliance with his wishes.

CHAPTER XV

MILITARY AND THE INDIANS

URING the early years following the Civil War the successive administrations at Washington seem to have appreciated, in a vague sort of way, that any real development of the new Territory of Arizona would be impossible without military protection from the hostile Indians, yet the relief furnished was so inadequate that raiding of mines and ranches and the murder of travelers continued more or less continuously down to 1885, when the worst of the Apache renegades were taken as prisoners of war out of the State.

According to Bancroft, the number of Indians in Arizona in 1863-64, exclusive of the Navajos, was about twenty-five thousand.

In Hinton's Hand Book, published in 1877, the following census is given:

COLORADO INDIANS		
Mojaves and Chemehuevis	820	
Hualpais	600	
Coahuilas	150	
Cocopahs		
-		1,750
Moquis (Hopis)		1,700
Pimas	4,100	ŕ
Maricopas	400	
-		4,500
Papagos		5,900

APACHES

Pinal and Aravaipa 1,051	
Chiricahua	
Mojave 618	
Tonto 629	
Coyotero 1,612	
Southern 1,600	
Yuma	
	6,159
Yumas 930	·
Mojaves 700	
Navajos	
	13,508
	33,507

Of these only the following are named as being engaged in civilized pursuits:

All the Hopis, 1,700; Mojaves, 400; Pimas and Maricopas, 800; Papagos, 950; and about 700 Apaches and 3,500 Navajos.

To protect the settlers against the hostiles, the War Department furnished from two to three regiments of soldiers, distributed in posts in different parts of the Territory. These were not in any sense defensible forts, but simply barracks where soldiers were quartered. In the desert country the buildings were usually made of adobe, with pole roofs covered with clay. In timbered localities like Prescott log houses, in some cases, were erected.

The principal posts used during the period from 1865 to 1885 include the following:

Fort Yuma on the lower Colorado; Fort Mohave on the Colorado, a few miles below Hardyville (this post was maintained specially to look after the Mojave and Hualpai Indians, and give protection to the ferry across the Colorado at Beal's Crossing); and Camp Crittenden on the Sonoita, which took the place of old Fort Buchanan. Tubac was rehabilitated for a short time after the Civil War and garrisoned companies of the Arizona volunteers as well as United States troops.

Fort Mason at Calabasas, fifteen miles to the south, was also maintained as a garrison for a short time.

Camp Huachuca, in Cochise County, is one of the newer southern Arizona camps, being built in 1876. As it is less than fifteen miles from the border, its importance has grown steadily, while practically all the old Indian posts have long been abandoned.

Fort Lowell was first located at Tucson and occupied in 1862. It was abandoned in 1864, reoccupied in 1865, and in 1873 removed seven miles east of the town.

Camp Bowie, as we have seen, was established in Apache Pass after the battle between the soldiers and the Chiricahua and Mimbres Apaches. General Miles used it as his headquarters when campaigning against the Apaches in 1885. It was abandoned in 1896.

Forts Apache, Thomas and Grant are in approximately a straight line running north and south, fifty or sixty miles from the New Mexican border. All were in Apache country, and besides guarding the miners and farmers in the upper Gila and Salt

countries, they were designed to check bands of renegade Apaches raiding en route to and from Old Mexico. Fort Apache, the farthest north, is about eighty-five miles south of Holbrook on the White River. It was established in 1870. Thomas was fifty miles south of Apache, on the upper Gila, while Grant, at the foot of the Pinaleño Mountains, was about thirty-five miles south of Thomas.

There was also an earlier Camp Grant, of much historic interest, which was situated at the confluence of the San Pedro and the Aravaipa Creek, and was originally established as Fort Breckenridge, as has already been mentioned.

Camp McDowell was located about thirty miles northeast of Phoenix on the Verde River, and was established in 1865. It was also an important Apache post, being near of access of a number of Apache trails running through the mountains to the north and east.

Camp Verde, which was first known as Camp Lincoln, is in the upper Verde Valley, forty miles or so east of Prescott. It was used in 1863 by the California volunteers, afterwards, in '64, by Arizona volunteers and finally by the regulars. In 1876 there were quartered at this post six officers, one hundred and seventeen men and forty Indian scouts. It was also in Apache country.

Whipple Barracks, whose establishment we have already noticed, was one of the most important posts in the Territory in Apache days. Near the capital of the State, and being regimental head-quarters with a band, it was the center of much

social life for a number of years. For a while General Crook used it as headquarters for the military department of Arizona and southern California.

In 1864, the year of Arizona's birth as a separate commonwealth, the military forces of the Territory were in command of Gen. James H. Carleton, who had acquired prestige not only as the leader of the California column when the Confederates had been driven eastward, but in successful campaigns against New Mexican Indians. However, after his arrival in Arizona, although he waged an unremitting warfare against the Apaches, wherein some two hundred members of the tribe were killed, no relief of permanent value to the settlers accrued.

At all times skeptical as to the ability of the regular army to protect them, throughout the years that followed bands of civilians from time to time would organize temporary expeditions on their own account against the hostiles. In 1864, such a party, led by "Col." King S. Woolsey, attained a rather unfavorable notoriety, at least outside of the Territory, as it was claimed that he, upon running across a number of Tonto Apaches, invited them to a conference and poisoned them by giving them pinole mixed with strychnine. For years the pinole treaty was a stock story of Apache sympathizers to illustrate the brutality of Arizona settlers.

This version of the story is denied by one of the party, A. H. Peoples, in an account given by Mc-Clintock. A band of Apaches had stolen a number of Peoples' horses and mules. Woolsey and Peoples, with sixteen other settlers, went in pursuit of them. They followed the trail south from Peoples' Valley to the lower Verde, where they received reinforcements in a party of Pima and Maricopa warriors. A few days later they came upon a large band of Tonto Apaches near the present town of Miami. As the hills appeared to be fairly swarming with the savages, it seemed more prudent to Woolsey to parley than to fight, and an Apache boy, who was a member of Woolsey's party, was sent as an ambassador to the enemy.

The boy, after conversing with the hostiles, came back with the information that the Apaches were willing to have a peace talk, but advised the Americans to be careful, as what the Tontos were really planning was to massacre them. Hardly had they all been seated on their blankets when an Indian made a suspicious movement. It seemed to be a case of "he who draws first draws best," and the fight was on. Though far outnumbered, the Woolsey party had the best of it in arms, and made a successful retreat. We read that the Apache boy and the Maricopas fought the Tontos like fiends, taking twenty-four scalps. Apaches, however, always maintained that they came to the peace talk at the invitation of the Americans, and, with no thought of treachery, were fired upon by their hosts without provocation.

A year later, Arizona was transferred from the military headquarters of New Mexico to California, and Gen. John S. Mason was put in command of the Arizona forces, which, reinforced by California volunteers, was raised to about twenty-eight hundred men.

Mason at once established the policy of treating all Apaches in the Territory as hostile, and gave orders that all Apache men, large enough to bear arms, should be slain on sight, unless they gave themselves up as prisoners. Women and children, too, were to be taken prisoners. Mason acted on the theory that an Apache at large was a continual menace, and that the only way that the Territory could be made a safe place for white people to live in was either to exterminate the hostiles or put them on a reservation and keep them there. A reservation for the Colorado Indians had been established in 1865. Mason now organized a second reservation at Camp Goodwin, near the later Camp Thomas, which was maintained until the end of 1868.

In 1866 the military forces of Arizona were substantially augmented by the organization of five companies of Arizona volunteers. Company A, thirty-five men, was composed for the most part of Mexicans and was commanded, while in the field, by Second Lieut. Primitivo Cervantes. Company B was recruited entirely from Maricopa Indians. Thomas Ewing was first lieutenant, and Charles Reidt second lieutenant. Company C was composed of Pimas, and John D. Walker, who boasted of eastern Indian blood and who spoke Pima, was the captain while the company was in service. William A. Hancock, afterwards a Phoe-

nix attorney, was second lieutenant. Antonio Azul, chief of Pimas, was first sergeant and later seems to have been promoted to a lieutenancy. Company E was recruited from Mexicans in the vicinity of Tubac by Capt. Hiram H. Washburn. His lieutenant, while in service, was Manuel Gallegos. Company F, also composed of Mexicans, was commanded by Oscar Hutton, afterwards a scout in the regular army.

All of these companies actively participated in the campaign against the Apaches. Both the Pimas and Maricopas, as well as the Mexicans, made good soldiers, bearing discomforts and privations without complaining and fighting with dash and bravery whenever the opportunity afforded. At the end of a year's campaign Capt. H. H. Washburn of Company E reported, "One thing has been proven, that native troops are far superior to any others for field service in the Territory, and until this has been taken as a basis of operation no immediate good results can occur. Government may continue to spend its millions on any other basis and the Apache raids will still continue, while three hundred native troops, well officered, at an expense of less than \$800 to the man per year, will, in less than two years, rid the Territory of its greatest bane and obstacle in the way of progress."

To the great discredit of the Federal Government it must be recorded that after a year of the hardest kind of service, efficiently and bravely rendered, the men subsisting at times on half rations, illy clad, making their own shoes out of deerskin

to keep from going barefoot, these gallant soldiers never received a cent of pay.

In this connection it is perhaps not out of place to anticipate our narrative and call the attention of the reader to the fact that in the final campaign waged against the Apaches by Generals Crook and Miles, much of what was accomplished was due to the sagacity and daring of their native scouts made up of Pima and friendly clans of Apaches.

In May, 1866, General Mason was succeeded by Col. H. D. Wallen in the north and Col. Charles S. Lovell in the south, and they in turn were replaced early in 1867 by Gen. J. I. Gregg and Gen. T. L. Crittenden, whose combined military force consisted of between fifteen hundred and two thousand men. In October, 1867, by order of General Halleck, Arizona was made a separate military district. A year later Gen. T. C. Devin was put in command, and succeeded in 1869-70 by General Wheaton.

While it is to be noted that the regulars who succeeded the volunteers did not seem to make as efficient soldiers as did the native troops, they kept up a steady campaign against the hostiles. Still little progress was made toward making Arizona a safe place for white people to live in. All of the commanders seem to have been working on the theory that the adoption of some kind of a reservation plan would come the nearest toward solving the problem, yet the steps they made in that direction cannot be said to have been notably crowned with success. General Devin stopped the rations at Camp Goodwin because the Apaches would not

surrender murderers nor agree to settle permanently. Also a temporary reservation at Camp Grant, which fed many Pinal Apaches in 1867-68, was abandoned because a satisfactory agreement could not be reached with the natives.

In 1869, Arizona and southern California were combined into a military department with head-quarters at Fort Whipple, with the command put into the hands of Gen. George Stoneman. General Stoneman seems to have followed a policy similar to that later worked out more successfully by Crook, which was, in brief, to exterminate persistently depredating Apaches, but encourage those who were inclined to pursue the paths of peace by furnishing them with rations and blankets.

The civilians of the State, however, thought that he put decidedly more stress upon rewards than punishments and that the Apache, murderous at heart and cunning by instinct, was making a fool of him; that the general's feeding stations were simply rendezvouses where the Apaches fattened themselves at the nation's expense and from which they made their murderous raids. State officials, legislators and private citizens were of one accord in these complaints, and finally, in the spring of 1871, a number of the citizens of Tucson took the matter into their own hands in a way that brought lasting shame to the Territory.

That spring a band of Apaches had surrendered at Camp Grant, and about three hundred were allowed to camp near by on Aravaipa Creek, where they received rations and did some little work for

the garrison. While they were there, settlements on the San Pedro and Santa Cruz were being raided and travelers murdered. It was believed by the people of Tucson that it was these Camp Grant Indians that were doing the bloody work. Finally a ranch belonging to Lester B. Wooster, which lay just above Tubac, was raided. Mr. and Mrs. Wooster were both killed, and the contents of the house and the outbuildings demolished in the most wanton manner. This proved one outrage more than the settlers could bear. When the news came to Tucson a meeting was quickly called, which was attended by Sidney R. DeLong, W. S. Oury, Jesus M. Elias and other prominent citizens. It seems that protests against outrages had already been sent both the agent at Grant and to General Stoneman, but no satisfaction had been obtained from either. Now at this meeting a terrible plan of revenge was agreed upon. The Papago settlement at San Xavier had also been raided a short time before, and those usually peaceable Indians were keen for revenge. The result was that a party consisting of ninety-two Papagos, forty-eight Mexicans and six Americans, with Elias and Oury as leaders, started for the Apache camp on the Aravaipa. They reached it the second day just as the dawn was beginning to break, while the Apaches were all still asleep, except a man and a woman on a bluff, presumably guards, who were playing cards. The attack was a complete surprise, and Americans, Mexicans and Papagos slew what Apaches they encountered without mercy. Many

of the Indians escaped by flight to the hills, but others were not so fortunate. Some accounts say that eighty-five, others that one hundred and thirty-eight were slain. Bancroft says that all but eight were women and children. Twenty-eight Indian babies were taken prisoners.

One hundred and eight persons said to be implicated in the crime were tried for murder at Tucson but, as might be expected, no jury would convict them. The one thing that made their acquittal absolutely certain was that the dress of Mrs. Wooster and a pair of moccasins belonging to her husband were found on the bodies of the slain Indians.

Nevertheless, whatever justification those six Americans must have had for avenging themselves upon the Apache braves, it is difficult to see how the slaying of the women and children could ever have been anything but a horrible, haunting memory to them.

In 1871, Gen. George Crook, a soldier of proven ability, and a man who combined a high character with much common sense, succeeded Stoneman in his command. The line between success and failure in any field is not necessarily a broad one, so while following a policy that did not differ greatly from those of his predecessors, yet with his keener judgment, with his superior qualities as a leader and his ability to command the confidence of both Indians and settlers, where those who had gone before him had only marked time, Crook made a distinct advance toward arriving at a solution of Arizona's Indian question.

Like other commanders, he set out to teach the Apaches that it was more to their interests to be peaceable than to be warlike, and, differing from his predecessors, to a large measure he succeeded. He also made the Indians appreciate that when he said that Indians as well as white men should work for what they ate, that it was within the range of possibilities for him to enforce his doctrine.

One of the first things that the general did was to organize a band of Indian scouts. These included not only friendly Pimas but Apaches as well. As we have seen, Apaches of different clans were not always on good terms with each other; indeed, some were at war with each other much of the time. In consequence one band was often quite willing to aid Crook's soldiers in fighting another. Then, too, Crook seemed to have been able to give his scouts the point of view of peace officers. They went after the renegades to force them to become good citizens.

To familiarize himself with his field, as well as to educate and harden his troops, soon after his arrival he led five troops of cavalry, with scouts and camp equipment, on a trip that totaled nearly six hundred miles. Their itinerary included much of the Apache country, passing through Camps Bowie, Apache and Verde. Crook finished his journey at Whipple Barracks, which had been made departmental headquarters. The amount of good this swing around the circuit did can scarcely be overestimated. The commander had conferences with different groups of Apaches

wherever he found them, and his faculty of making them understand that he proposed to deal with absolute justice with all of them was a continuous matter of wonder to his subordinates.

Although the Apaches had been murdering Mexicans since the eighteenth century and Americans from the time of their arrival in the Southwest, the East in general and Washington in particular had taken but a languid interest in the matter. As a congressman said, after listening to a pioneer's tale, "Well, what do you want to go into such a God-forsaken country for?"

However, when such stories as the Pinole Treaty and the Camp Grant massacre reached the sensitive ears of the easterner, he decided that the savagery of the barbarous whites, who were trying to exterminate the Apaches, had gone far enough, and Washington sent out Vincent Colyer, peace commissioner, to settle the matter.

By authority of President Grant, Colyer was given powers which took precedence even over those of the military.

There is no denying that the Indian situation in Arizona needed remedying. Unquestionably, there had been outrages perpetrated by the whites against the Indians as well as Indian outrages against the whites, and sweeping powers in the hands of the right man, or a proper commission, might have resulted in much good; but it soon became apparent to all who were familiar with the situation and acquainted with Colyer that he was anything but the right man. A member of

the Church of Friends and a man of strong prejudices and no tact, his only knowledge of Arizona Indians had been gained in a brief visit to the Hopis in 1869. Now, upon again entering the Territory, he brought with him the preconceived conviction that in all troubles between the races the Apache had been the innocent victim and the white man the aggressor.

Ever welcoming any stories that would strengthen his position, he listened with avidity to such tales as that of the killing of Mangas Colorado, the Pinole Treaty or the imprisonment of Cochise, but brushed aside as unworthy of consideration evidence laid before him of literally hundreds of the outrages of the Apaches upon the whites.

When the citizens of the Territory realized the stamp of the man that had been sent out to them with such vast authority to settle the Indian question, feeling against him ran so high that Governor Safford was moved to issue orders for his protection. Whether there was need of this the reader may judge from an editorial in the Prescott Courier wherein Colyer is referred to as a "cold-blooded scoundrel," and the Arizona citizen was advised, "In justice to our murdered dead to dump the old devil into the shaft of some mine, and pile rocks upon him."

Still Colyer could do but little more than listen to the oratory of the Apache chiefs, and carry out the plan that Crook had already undertaken, which was to place the Indians on reservations and treat them fairly. So he selected Camp Apache for the Coyoteros, Camp Grant for the Aravaipas and Pinals, McDowell for the Tontos, Camp Verde and Date Creek for the Mojave Apaches, and Beal Springs for the Hualpais, and returned to the East, the execrations of all Arizona following him.

Colyer's idea was that the country really belonged to the Apaches, and if the whites didn't like their ways they could leave, or, staying, the least they could do was not to drive the peaceful aborigines into violence by aggravating treatment. The flaws in this theory, even assuming the impossible, that a bar could be put upon the western march of civilization, are that the Apaches themselves had not so long before secured their own title to the hills by driving out previous inhabitants, and that, wanton and cruel as had been the acts of certain degenerate whites to the Apaches, other tribes, like the Pimas and Maricopas, for example, have never been forced to take up murder to protect themselves from outrages at the hands of even the worst of the palefaces.

The bias of Colyer's report must soon have been realized even at Washington, for within a year of the peace commissioner's departure the Apaches had made fifty-four raids and killed forty-one citizens.

However, General Crook was glad to use the reservations Colyer had located, and was backed up by Washington in his purpose to enforce strict discipline upon the interned Indians, and chastise the renegades by unremitting warfare.

A second Indian commissioner visited Arizona in April, 1872, in the person of Gen. O. O. Howard, a very different kind of a man from his predecessor. He was not only a soldier of distinction, but a man whose deep religious convictions were active principles of his life. Also, like Crook, he mixed his theories with wisdom and common sense.

Not contented with listening only to the Indians' side of the case, he also gladly embraced the opportunity of consulting the local citizens. One important thing accomplished by him was the completion of a treaty between the Apaches and their ancient foes, the Pimas and Papagos. He also moved the Apaches quartered at Camp Grant to the upper Gila, where the San Carlos garrison was established.

The children stolen in the Camp Grant massacre had been adopted by Mexican families at Tucson. At a big conference held at Camp Grant, General Howard ordered their return to their kinsmen.

When the general went East he took with him seven prominent Indians from the Apache, Pima and Papago tribes, and returned with them to Arizona in the fall with each chieftain the possessor of a new, blue suit of clothes, a bronze medal and a Bible. Soon after he abolished the reservations at Date Creek, McDowell and Beal Springs, allowing the Indians to change their residences to other reservations.

The most characteristic as well as picturesque thing that the general did was to go practically unprotected into the fastnesses of the Dragoon Mountains and visit the great Chief Cochise.

The only white men accompanying General Howard were his aide, Capt. J. A. Sladen and Capt. Thomas J. Jeffords (Cochise's friend and bloodbrother). With them went Chief Ponce and a son of Mangas Colorado. The meeting was held with much oratory and ceremony, with subchiefs and the mighty Cochise all in attendance. General Howard wanted Cochise to take his people to the San Carlos Reservation, but Cochise objecting, it was agreed that the reservation should be established in their own country—the southeastern corner of the Territory where the Government was to provide them rations.

The plan was carried out, Jeffords was made agent, and, in 1872, the Chiricahuas were established therein to the number of one thousand people. In addition to the Chiricahuas a band of Janos came up from Old Mexico, and went in with Cochise's people, eager for the promised loaves and fishes. The chief of this band was Juh. There was also a subchief, oratorical, treacherous and savage, by the name of Geronimo, who was destined to prove as great a scourge to the people of Arizona as old Cochise himself, but without a particle of the big chief's sense of honor.

Other reservations that had been established included Camp Ord, afterwards known as Fort Apache, which, in 1870, had its beginning on White River. San Carlos to the south, on the upper Gila, was established in 1872. The northern agency

was afterwards discontinued, and the name San Carlos usually applied to the entire reservation.

At Camp Date Creek, in the western part of Yavapai County, in 1870, there were two hundred and twenty-five Indians, mostly Yavapais. At Camp Verde, in 1873, there were two thousand Tonto Apaches, and the Yavapais which had been taken there from Date Creek. At the Verde, under Crook's wise management, the Indians were interested in agriculture, and did a large amount of work on irrigating ditches. However, just as everything was running smoothly, against Crook's vigorous protests the Indians were removed to San Carlos. On the way some of them escaped, others got into a fight with the Yavapais, which resulted in five dead Indians.

Altogether, what with the settlers, the military and the Interior Department, working at cross purposes, ideal conditions were far from being attained. There was an element among the Apaches that had both the desire for the peaceful life and wisdom enough to see the futility of trying to whip the United States, but there were ever turbulent ones whose innate savagery so chafed at the restrictions imposed upon them by the discipline of the reservations that they were ready to grasp any opportunity to escape from their benevolent restrictions and go on expeditions of thievery and murder.

It was encouraging to note, however, that in pursuit of these renegades the law-abiding Indians showed the sincerity of their professions by giving most valuable service in aiding the soldiers as scouts, and often being as zealous in hunting down the runaways as any of the whites. As will be seen afterwards, there were times when some of these scouts proved treacherous, at terrible cost, and Crook was severely censured for the confidence he placed in this savage soldiery, yet it would have been impossible to have followed trails and to have pierced the heart of apparently inaccessible mountains in pursuit of renegades without the guidance of these trailers, and in spite of mistakes made in the choice of them, their service justified their use.

Convincing the turbulent Apache that the pastime of murder was, after all, an unprofitable business, thoroughly occupied General Crook's time. Depredations in some part of the Territory were going on continuously. Miners were being slain, freighters were being ambushed and ranches raided with exasperating monotony. On November 4, 1871, a stage coach containing seven men and one woman, a Miss Sheppard, left Wickenburg for California. When but nine miles of the journev had been covered a band of Yuma Apaches from Date Creek surprised them, killing all the men but one. Being shielded by the men, Miss Sheppard, too, had escaped death, and after the first volley she and the surviving man, Cruger, though both were wounded, drove back the savages with their revolvers, and finally escaped.

The prominence of one of the murdered men, Fred Loring, a young scientist, again attracted the attention of the East to Arizona, and put emphasis on the theory that there might be bad Apaches in the Territory as well as bad whites.

Encouraged by this successful depredation, the Date Creek Indians now plotted the murder of General Crook himself, but the "Old Gray Fox," as the Indians called the general, being warned, laid his plans accordingly. The deed as plotted was to take place at the usual "peace talk," which would be proposed the first time the chief should visit Date Creek, and at a signal, the lighting of a cigarette, the Apaches were to massacre Crook and whatever other white men chanced to be with him.

Crook, wishing to bring the matter to an issue at once, took the opportunity to make an early visit, and, accompanied only by Lieutenant Ross, sat down with the treacherous chiefs in council. However, behind this circle of potential murderers casually lounged a dozen or so packers of the mule trains, veterans of a hundred frontier battles, and every man, with weapons concealed, watched for the signal. It came. As the cigarette was lighted, a chief snatched a rifle from his blanket and aimed it straight at Crook, but before he could fire the alert Ross had struck up the barrel. Then occurred a grand, Homeric fight, participated in not only by the sinewy packers, but by whatever soldiers there were at the post who came running to the aid of their general. So hot was the fight that the Indians fled to the hills. In a short time Crook, with a detachment of the Fifth Cavalry, engaged the Indians near the head of Santa Maria Creek, and decisively defeated them.

Another picturesque battle fought by Crook's men was what is usually known as "The Battle of the Cave," and was an incident of a general campaign covering middle Arizona east of McDowell and centering at the Tonto Basin.

Nataje, an Apache scout, advised Major Brown, the leader of a detachment, that he could undoubtedly find hostile Apaches in a cave he knew about near Salt River, at the end of the southern slope of the Mazatzals. The major sent Nataje with Lieutenant Ross and twelve men as an advance party. Approaching their destination just before daylight, they discovered a band of braves singing and dancing about fires in front of the cave. Following the orders of the campaign, the soldiers fired. Six of the Apaches fell, the rest fled into the cave, which, though of no great depth, was protected by a parapet of boulders. Capt. John G. Bourke arrived with forty more men. and was later followed by Major Brown with the rest of the command, including Pima scouts. was soon discovered that there were women and children in the cave, but the commander's assurance that they would receive kind treatment if they came out, was answered with jeers of defiance.

After a time it was also noticed that rifle bullets shot by the soldiers against the slanting roof of the cave would riccochet among the Indians, and volley after volley was thus fired. Cries from within the cave soon made it apparent that the shots were killing women and children as well as men. A

second demand for surrender was made, and, in response, came a weird and eyrie death chant rising defiantly from the throats of the beleagured Apaches.

The battle continued for hours; the Apaches had determined to die, but before dying, to kill every soldier possible. Some time after daylight a detachment of Company G suddenly appeared on the crest of the cliff above the cave. Immediately these men began to drop huge boulders, which, striking the parapet and bounding inward, wrought fearful havoc. It was the end! Just before noon the soldiers entered the cave where a fearful sight met their eyes. All the warriors lay dead but one, and he was dying. But eighteen of the women and children were left alive, and these had saved themselves by hiding under stones.

Carlos Montezuma, college-educated and a practicing physician in Chicago, who has a national reputation as a worker for the betterment of his race, was one of these Apache babies.

General Crook kept up his systematic policy of proving to the renegades that the way of the transgressor is hard until, by 1874, the Apaches had pretty much agreed to be good, and the greater part of the tribe was on the reservation. Crook's good work was appreciated by the people of Arizona, and a vote of thanks was given to him by the Territorial Legislature. It was now hoped that to a great extent the Indian question was settled. Most unfortunately, however, in March, 1875, Crook was sent north to fight the Sioux and

was succeeded in Arizona by Gen. August V. Kautz.

Whether or not the new commander was less efficient in military lines than his predecessor, he was undoubtedly less tactful in his dealings with the citizens of the Territory, and soon we find press and people again uniting in bitter criticism of the military. Indeed, open charges of inefficiency were made against Kautz which finally led to his removal.

In carrying out the now adopted policy of placing all the Arizona Apaches on one reservation, the Chiricahuas were transferred to San Carlos in 1876 and the Hot Springs bands in 1877, when the number of Indians in the White Mountain Agency. which included Fort Apache as well as San Carlos, numbered over forty-five hundred. Both the Chiricahuas and the Hot Springs Indians bitterly resented being removed from their old homes, and while the former band was being transferred quite a detachment of them escaped, starting in at once on an orgy of depredations, and by September they had killed twenty persons. As the Hot Springs band was being taken across the country, Victorio and some of his associating villains got away into Mexico.

While from now on there was comparative peace in the northern and western part of Arizona, that part of the Territory extending from the White Mountain Reservation south into Mexico and east into New Mexico was the scene of frequent outrages which Gen. O. B. Wilcox, who suc-

ceeded General Kautz, seemed unable to stop. One reason for this perhaps was that the Apaches were now all armed with repeating rifles, and apparently had no trouble in getting ammunition enough to make them exceedingly dangerous. Victorio came up from his Mexican raids, killed seventy-three whites north of the line and escaped again into Mexico, but General Terrazzas was waiting for him down in Chihuahua with a small army. They decisively defeated his braves and, in 1880, slew Victorio himself, upon whose head the Mexicans had placed a bounty of \$1,000. That same year Juh and Geronimo, with one hundred and ten of their followers, who now seemed to be considered Chiricahuas, were rounded up to make undesirable citizens of San Carlos.

Towards the end of 1880 a Coyotero medicine man on Cibicu Creek was stirring up trouble with promises to raise their old war-chief, Diable, under whose leadership the Apaches would sweep the white men from the Territory. This started a complicated series of troubles in which the medicine man as well as several soldiers were killed. One most serious feature of the trouble was that a number of Apache scouts turned traitor and opened fire upon unsuspecting soldiers, when one officer and four privates were killed. Later the hostiles attacked Fort Apache itself. New troops were hurried to San Carlos and five chiefs implicated in the outbreak had surrendered to Indian Agent J. C. Tiffany, when, unexpectedly, a band of renegades headed by Juh and Geronimo escaped from the reservation, followed by Loco and his Hot Springs band, and another carnival of crime and horror ensued.

It was then (July, 1882) that General Crook was sent for to relieve General Wilcox, in the hope, doubtless, that the personality of the "Old Gray Fox" would give confidence to the settlers and have a subduing effect upon the Apaches.

The returning commander found affairs in a bad state. The Interior Department seems to have chosen as Indian agents friends of politicians rather than men of probity and ability. The record of Agent Tiffany at San Carlos, who was supposed to have been a minister of the gospel at one time, seems to have been especially bad. The Federal grand jury at Tucson in 1882 reported: "We feel it our duty as honest American citizens to express our utter abhorrence of the conduct of Agent Tiffany and that class of reverend speculators who have cursed Arizona as Indian officials and who have caused more misery and loss of life than all other causes combined. . . . Fraud, peculation, conspiracy, larceny, plot and counter plot seem to be the rule of action upon this reservation. With the immense power wielded by the Indian agent almost any crime is possible. . . . Rations can be issued ad libitum for which the Government must pay, while the proceeds pass into the capacious pockets of the agent."

General Crook had a conference with the Indians at San Carlos and told the chiefs that he was going to place the responsibility directly upon

them, and that they must not only keep the peace at the agency, but themselves punish offenders. He then established his old disciplinary rules of metal tags and frequent roll calls.

The reservation was to be policed, as of old, with native guards.

A better feeling was apparent at once, and a number of the Apaches were allowed to leave the river agency and go into the northern part of the reservation where soon about fifteen hundred of them were self-sustaining.

But still the Indian question was not settled. In March, 1883, Chatto, one of the most infamous murderers who ever went unhung, came up from Mexico, and killed among others Judge and Mrs. McComas, prominent Arizona people, taking their little boy, Charley, into captivity, and later killing him.

It was now evident that to secure peace on either side of the border the Apaches must be rounded up in Mexico as well as in Arizona, and after a conference with the governor of Sonora, Crook sent a well-organized expedition under guidance of an Apache called Peaches (who claimed to be an enemy of Chatto) to the Apache stronghold in the Sierra Madre Mountains. Although the expedition did not accomplish all that was hoped for, Crook succeeded in penetrating to the heart of the Apache rendezvous, waged a successful battle at a half-deserted rancheria, and, after a conference, induced about four hundred of the Apache outlaws, including Geronimo.

Chatto, Nachis and Loco, to return with him. In order to persuade them to do this, however, Crook was obliged to concede that past offenses should be forgotten, that they were to march much as they pleased and keep their arms and whatever horses, mules and cattle they had, all of which, it may be mentioned, had been stolen from the Mexicans. On the way Nachis, Chatto and Geronimo disappeared, leaving the soldiers to escort the squaws and the stolen property safely back to the reservation. However, Chatto came back the following February, and Geronimo, under charge of Lieutenant Davis, came in March.

One reason why these brave bucks were willing to return to their rations at San Carlos may have been that the Mexican Government had fixed a market price of \$250 each for male Apache scalps. At the White Mountain Reservation history repeated itself with monotonous inevitableness, and in May, 1885, the old, murderous band led by Geronimo, Chihuahua and Nachis again went on the warpath and soon had twenty-one more victims added to their infamous list. The southeastern part of Arizona was now completely terrorized. Home guards were organized at Tucson, Clifton, Bisbee and Tombstone, but their efforts were not effective. Grant County, New Mexico, offered \$250 for every renegade Apache killed, and an Arizona board of supervisors offered \$500 for Geronimo, dead or alive. It must now have been apparent to Crook himself that his policy of trying to conciliate such savage criminals as Geronimo was

destined to be wholly fruitless. By inheritance and ingrained habit their fingers perpetually itched for murder, and as long as they had the opportunity they would not change their ways. In December, 1885, General Crook organized his last campaign into Mexico. His force included a detachment of Apache scouts, under Capt. Emmett Crawford, who was destined to be killed by treacherous Mexican soldiers. The renegades were driven into southeastern Sonora, and when the pursuit grew too hot the hostiles calmly asked for the usual peace talk.

It was arranged that they were to have a conference with General Crook at Funnel Canyon, Sonora, twenty-five miles below the line. The big talk took place as arranged. With Crook and his guard of friendly Apache scouts were Captains Bourke and Roberts, Lieutenants Faison, Maus and Shipp, with a few citizens and interpreters. Among the Indians were Nachis, Geronimo and Chihuahua.

Crook had been instructed by President Cleveland himself, through General Sheridan, to consent to nothing but the unconditional surrender of the Indians, and to take every precaution against the escape of the hostiles. It is possible that Crook might have succeeded in his undertaking had not a man by the name of Tribolet brought fifteen gallons of whisky into the camp of the Indians, which he sold to them for \$100. Geronimo, Nachis and other chiefs immediately got drunk. That night Geronimo disappeared, and although eighty

Apaches returned with Lieutenant Faison to Fort Bowie, the conference was a failure. Heartbroken at the outcome of the affair, which had involved much hostile criticism on the part of his military superiors, as well as from the people of Arizona, General Crook tendered his resignation as commander, which was promptly accepted.

It was now definitely decided that all of the renegade Apaches must be deported from the Territory. On April 10, 1886, Chihuahua's band of fifteen men, thirty-three women and twenty-nine children were started for Fort Marion, Florida.

Immediately upon his arrival, April 11, 1886, Gen. Nelson A. Miles, Crook's successor, started in on a vigorous campaign against Nachis, Geronimo and their followers. Appreciating doubtless that former failures had come about through insufficient troops, the War Department furnished General Miles with six thousand soldiers, which he distributed at strategic points throughout the southeastern part of the Territory. In the meantime Nachis and Geronimo, with bravado and impudence, secured a following of all the renegades, and were raiding across southern Arizona and northern Mexico, from the Santa Cruz eastward, leaving a bloody trail behind them. In pursuing the renegades no troops ever saw more active service or followed more closely a trail than did the command of Capt. H. W. Lawton, which consisted of thirty-five men of Troop B, Fourth Cavalry: twenty men, Company A, Eighth Infantry: twenty friendly Apache scouts and two pack trains. Also accompanying Captain Lawton were Lieutenants Johnson, Finley and Benson. Their surgeon was none other than Leonard Wood, now major general in the regular army.

A hot trail of Geronimo's band was picked up on the Penito Mountains, Sonora, and thereafter the soldiers hung on to the trail of the fleeing outlaws like wolf hounds after a pack of wolves. Over deserts, where the heat rose to 120 in the shade, went the renegades, up rock gulches, over mountain tops, dodging through this canyon and that, resorting to every Apache trick to throw their pursuers off the trail. But with the Indian scouts leading, the little column of soldiers, ever loyal, ready to cover seventy miles a day if need be, kept doggedly to the chase, covering over three thousand miles during the brief campaign. Finally, on July 20th, all but spent, the Apaches were driven into a pocket near the old presidio town of Fronteras, Sonora. One account says that, realizing that capture must come sooner or later, and believing that surrender at worst would mean nothing more disastrous than a resumption of high living and plain thinking at San Carlos, Geronimo, in a roundabout way, let word come back to General Miles at Bowie that he was ready to return to the fold. In any event, Lieut, C. B. Gatewood of the Sixth Cavalry, with two friendly Chiricahuas, was sent from headquarters to Sonora to communicate with Geronimo, and, on August 25th, taking his life in his hands, Gatewood entered the camp of the hostiles and talked with Geronimo, whom he well knew. However, the old villain declined to surrender unconditionally and wanted further negotiations with General Miles. The day following he wandered unconcernedly into Lawton's camp to talk with that officer concerning the preservation of his rascally skin. The first thing that Lawton advised him to do was to bring his followers down from the mountains and camp near by. The old chief complied. There were Mexican troops in the vicinity. only too anxious to hang Geronimo and the rest of the chiefs, and Lawton had no trouble in getting the consent of the Indians to start north with him. Before going to Bowie, however, where General Miles was still waiting, Geronimo wanted General Miles to meet him at some intermediate station where they could hold one of the old-time, friendly little conferences. However, the style in conferences had undergone a radical change, and when the message reached General Miles, he sent back word that he would not see the Indians at all unless they agreed to surrender and in the meantime give some evidence of good faith. As Lawton practically had the renegades surrounded with his cavalry, there was little else for the Indians to do but to agree, and Geronimo's brother was sent to Bowie as a pledge of their sincerity. On the march north, owing to Lawton's vigilance, there was none of the usual, casual dropping out of Indians en route.

General Miles met the expedition at Skeleton Canyon, in the San Simon Valley, where, on September 3, 1886, the hostile Indians, including Nachis and Geronimo, surrendered, and the leaders were hurried to Bowie. Within a week the band, under close guard, was aboard a train en route for San Antonio, from which place they were afterwards sent to Fort Pickens, Florida. The "Indian Question," as such, was settled.

In 1901 we saw Geronimo at the Pan-American Exposition, where he was being exhibited by a sentimental Government as a type of the noble redman. Around the old scoundrel was a crowd of sympathetic females, who were eagerly buying his autograph at ten cents a piece. With the writer was a pioneer Arizonan who knew personally more than one of Geronimo's victims, and what that pioneer said concerning the scene we were witnessing, while illuminating and picturesque, is scarcely printable.

NAVAJOS

At the close of the Mexican War, the Navajo Indians, who numbered about ten thousand, comprised by far the largest tribe in the Southwest. These notable Indians occupied the plateau country in the northeastern part of Arizona and the northwestern part of New Mexico. While the original stock was Athapaccan, various other tribes were undoubtedly grafted into it, including, at one extreme, the half-civilized Pueblans, and at the other the warlike Apaches. As a result there was produced a people versatile and adaptable, skillful in crafts, and cunning and aggressive in war. They had no chiefs in the usual sense of the word, and

whatever influence the head men had upon the rank and file of the tribe seemed to be derived solely from their personality.

Almost from the time of the arrival of the Spaniards into New Mexico there was hostility between them and the Navajos, but in their warfare the Navajos seemed to take no pleasure in the murderous brutality that was so characteristic of the Apaches. Soon learning the value of flocks and herds, the principal object of the Navajo raids would be to steal sheep and horses. On their part. when the Spaniards made warfare against the Navajos, they would make slaves of their captives, when in retaliation the Navajos would often enslave the Mexicans. Indeed, it was a common custom of all of the tribes of the Southwest, and especially of the Navajos, in their warfare with other tribes to make wives of captured women and slaves of tractable captured young men.

The original flocks and herds stolen from the Spanish colonists, under the care of the Navajos, who took with surprising aptitude to the vocation of herdsmen, multiplied until at the time of which we write, they number about two hundred thousand sheep, ten thousand horses and not a few cattle. Also, like practically all of the Arizona Indians, they practice agriculture, raising as much as sixty thousand bushels of corn a year.

They undoubtedly learned the art of weaving from the Hopis, who manufactured cotton blankets and garments from the earliest times. With their originality and marked aptitude for craftsmanship, the Navajos soon became very skillful weavers and marked their blankets with an individuality that is very notable. It may not be without interest to mention that with the Hopi it is usually the man who does the weaving. In the case of the Navajo it is the woman.

Pueblan influence is seen also in what little pottery the Navajos make, as well as in their woven plaques. In nothing is the adaptability and natural skillfulness of hand of the Navajos shown more clearly than in the excellent work of their silversmiths, who are especially fond of taking Mexican silver coins and fashioning them into buttons or ornaments for their person or saddles or bridles.

The theory that with primitive people the woman was always held as distinctly inferior to the man is disproved by the Navajos. Consultation between husband and wife is a necessary prelude before a sheep may be sold, divorce is by mutual consent, and incompatibility of temperament is wholly adequate grounds for such a separation. It is said that if the lady tires of her spouse, she sets his saddle and bridle outside the door of their hogan, which is a gentle hint for him to take himself off. The hint is seldom disregarded.

Should a wife prove unfaithful, it isn't etiquette for him to cut off the end of her nose, as is the cruder Apache custom; instead, if he wants to "save his face," his proper recourse is to prove himself a man by going off and slaying a member of some other tribe. One cause for trouble between the Americans and the Navajos had been that the tribe had no definite civic organization. Until late years every man was a law to himself, and answerable to no one. Promises made in behalf of the tribe by the chiefs or head men were nonchalantly annulled by their constituents at will, and while those who had acquired property naturally wished the stability of government that goes with peace, the sheepless and the lawless were ever ready to go raiding.

The treaty, as recorded, that was made between the Navajos and Colonel Doniphan, in 1846, was soon broken, as was the one with Col. J. M. Washington, military governor of New Mexico, in 1849, and another made by Governor Calhoun and Colonel Sumner soon afterwards. It was in the spring of 1852 that Colonel Sumner built Fort Defiance, which derived its name from the fact that it was built in defiance of the mandate issued by the Indians that it should not be built.

A characteristic bit of trouble was had at Defiance, in 1854, when a Navajo killed one of the soldiers; Major Kendrick immediately demanded that the murderer be produced. The Indians agreed with surprising alacrity, going so far in their zeal as to insist upon not only apprehending the culprit, but in hanging him themselves, which they did with all military ceremony, the entire garrison being assembled to see the act performed. But when dealing with the Navajo, things are not always what they seem. Two years

later it was discovered that the man executed was not the guilty Navajo at all, but a Mexican captive. The murderer was still living, a distinguished and honored member of the tribe.

Another treaty was made with the Indians by Governor Merriwether in 1855, but the Navajos were firm believers in the doctrine that treaties were mere scraps of paper, so the plundering went on just the same. In July, 1858, there occurred another Navajo murder, full of typical local color. A prominent man of the tribe wanted his wife to visit his relations with him, but she, frivolous lady, insisted upon going to a dance instead. Really annoyed by the action, for the moment forgetting the courtesy a true gentleman should show to even his wife under the most trying of circumstances, the husband not only followed her but, in an impetuous moment, laid hands on her, decidedly disarranging her wardrobe, whereupon the lady tartly announced the termination of their conjugal relations.

There was just one thing left for the flouted husband to do, he must find some one to slay. On the day following, he wandered up to Fort Defiance and, noticing Jim, the negro boy who belonged to Major Brooks, not at all from any ill feelings toward the youth, but simply as a matter of high principle, shot an arrow through him and fled. The boy died and the military authorities promptly demanded the murderer, but he was not produced. As a result, there was soon warfare between the soldiers and the Indians. Chief Sandoval, who had

always been friendly to the Americans, said that although all of the others might fail he would catch the murderer, and to prove his zeal sent out every scout he could command.

Every day the trail grew hotter. The villain had been seen at Ojo del Oso, later heard of at a cave near Laguna Negrita. Finally he was caught, but so desperate was his resistance that his captor had been forced to kill the man. The next day the corpse was brought in, but alas, though Chief Sandoval swore he was the Navajo murderer, and Chief Sarcillo Largo swore he was the Navajo murderer, the officers of the garrison recognized him as a Mexican prisoner of the Navajos whom they well knew, and a second vicarious sacrifice had been committed at Defiance.

In a number of skirmishes that ultimately grew out of this affair fifty Indians and seven or eight soldiers were killed and an officer was seriously wounded. The soldiers had killed much of the Navaio live stock, and, as it occurred to the Indians that paper was cheaper than mutton, the chiefs decided to make another treaty. So on Christmas Day, 1858, all was forgiven, if not forgotten, in a brand new covenant wherein Colonel Bonneville acted for the Government. Its terms required the return of all prisoners on both sides, Pueblans, Mexicans and Navajos, which had been taken during the several campaigns. Also, it was stipulated that the Navajos should indemnify the Pueblo Indians for all depredations since August, 1858. A boundary line was fixed beyond which the

Navajos were not to go. The producing of the slayer of Jim, the negro, which all the trouble was about, was waived. As the Navajos said, the gentleman had left the country. The treaty was quite elaborate and executed with due solemnity, but nevertheless Navajo depredations did continue just the same as they had before. In 1860 the Navajos actually attacked Fort Defiance itself, when they were repulsed without any great losses on either side. The report of this seems to have been noted even at Washington, and in the winter of 1860-61 Colonel Canby, with regular troops, aided by a large force of volunteers, including many Pueblons and Ute Indians, marched to Navajo territory. The principal result of the campaign was losses in Navajo live stock, which hit the tribe in a tender spot, and led them to again sue for peace. In February, 1861, an armistice of three months, which afterwards was extended to a year, was agreed upon. Then came on the Civil War, and with the withdrawing of the troops from Arizona the Navajo resumed his raiding with even more hilarity and abandon, if possible, than before.

PIMA HISTORIANS

In our story of Arizona we have been able only occasionally to give our readers glimpses of the Pima and Papago Indians. We have told you how friendly they have always been to the whites. We wish we had room to tell you more of their battles with the war-like Apaches and Yumas, when, more

than once, they signally defeated them. We must take space, though, to mention one thing about the Pimas. They had their own historian who kept the tribal chronicle, not on the written page or even by hieroglyphics etched on rocks, but by marks and notches on cane-like sticks. The historian, like old Owl Ears, of the Salt River Reservation. would take the stick in his hand, run his fingers along the notches and, with a far-away look in his eyes, begin: "Long time ago, one winter, many stars fall down in the sky; have big rabbit drive at Sacaton. Next summer two Apaches steal one Pima woman at Blackwater. She kill Apache man with rock, and come back pretty soon. Next fall lots of mesquite beans on desert. Next winter at Suhuaro fruit harvest have big drunk at Gila Crossing. Juan Bignose fall off his kee (house) and break leg." In news interest, at least, not wholly unlike the items we used to read in the Windy Corners Weekly Bulletin back on the farm.





WORKING OFF ENCESS ENERGY
Photograph Furnished by E. L. Graves

CHAPTER XVI

SALOONS AND "BAD MEN"

Thas been said that most Arizona towns began with the opening of a saloon to supply the necessities of life, later a grocery store would be started to furnish the luxuries. Possibly the idea that this statement intended to convey was that in pioneer Arizona the saloon was not only the poor man's club, but almost every man's club, and when the rear section of it was occupied by the usual Chinese restaurant, it came perilously near being many men's home as well. We, naturally, are not commending the custom, we simply record the historic fact.

Within the saloon were gaming tables. It is not strange that so many of Arizona's early citizens were gamblers in one form or another. An old pioneer friend of ours says they couldn't help being—that every time a miner visited his shaft, every time a cowboy went out after a "bunch" of cattle, every time a traveler started on a journey, he gambled his pay check or hope of profit against his life.

In the earlier days, poker and monte were the favorite saloon games, but later, in such places as Brown's "Congress Hall" in Tucson, or Gus Hirshfeldt's "Palace" at Phoenix, the opportunities to contribute to that fickle jade, Miss Fortune, would include one or more faro layouts, a roulette table, a crap game, a kino corner and perhaps a Chinese lottery. In these saloons, whose doors had no keys and whose nights were the principal parts of the days, there was always music and a lady in a gown of carmine or sunset-pink would place vocal gymnastics in competition with what was usually a very good orchestra composed of Mexicans, who played entirely by ear.

The most popular game at the "Palace" was faro, where the seats about the table would always be full, with more men standing behind. One queer rule of etiquette was that while social proprieties would not admit a negro playing with the whites at faro, a Chinaman would be admitted upon perfect equality. There the long-queued celestial would sit by the hour, and, whether winning or losing, his face would have all the facile mobility of expression of a granite tombstone. The colored customers would play craps and the mixed, unopulent clientele of the house, black-and-tan and white who wished to indulge their gambling proclivities with small risk concerned themselves at kino. Roulette seemed to hold special attraction for the tenderfoot who had money to burn and didn't mind the smell of smoke. In consequence more than one gentleman from east of the Mississippi was reduced from opulence to penury in a single evening, due to the unfortunate dropping of a small ball on the wrong color and number of a wheel. Occasionally, of course, a player would make a big winning which would be widely heralded, and which would result in increased playing at all of the tables.

There were many reasons why the owners of the tables found their calling a lucrative one. The two basic reasons are these: first, all games have a certain percentage in favor of the dealers: second, ninety-nine men out of a hundred, sooner or later, come back to the game if they win, and every man has to stop playing when he is broke. Indeed, the average laborer when he came to town did not expect to win with any consistency. His business in town was to "blow in" his pay check or his gold dust, and he expected to go back penniless to the hills, or his job, when his fling was over. So it happened, in every town of any size, the workers supported a group of affable, well mannered, cool-eyed, cool-fingered, law-abiding gentlcmen, who dressed well and were good spendersat the expense of others. In the big places the dealers worked in shifts of four hours at a time. the twenty-four hours through.

As told by Captain Bourke: "Isn't it rather late for you to be open?" asked the tenderfoot arrival from the East as (at Tucson) he descended from the El Paso stage about four o'clock in the morning and dragged himself to the bar to get something to wash the dust out of his throat.

"Wa-a-al, it is kinder late fur th' night afore last," genially replied the bartender, "but's jest'n the shank o' th' evenin' fur t'night."

From the saloon to the professional "bad" man

of the country is an easy transition, as the saloon was the parade ground where the bad man strutted. Sometimes, however, he would be spurious, and his bluff was soon called. Again we quote Bourke, who lived in Tucson in the early '70s:

"A wild-eyed youth, thoroughly saturated with 'sheep-herders' delight' and other choice vintages of the country, made his appearance in the bar of 'Congress Hall' and announcing himself as 'Slap-Jack Billy, the Pride of the Panhandle,' went on to inform a doubting world that he could whip his weight in 'b'ar-meat'. . . .

"'Fur ber-lud's mee color,

I kerries mee corfin on mee back, 'N th' hummin' o' postol-balls, bee jingo,

Is me-e-e-u-u-sic in mee ears.'

"Thump! sounded the brawny fist of 'Shorty' Henderson, and down went Ajax, struck by the offended lightning. When he came to, the 'Pride of the Panhandle' had something of a job in rubbing down the lump about as big as a gooseegg which had suddenly and spontaneously grown under his left jaw; but he bore no malice and so expressed himself.

"'Podners,' he smiled, 'this 'ere's the most sociablist crowd I ever struck; let's all hev a drink.'"

Another story Bourke tells is of ex-Marshal Duffield of Tucson who was credited with having slain thirteen undesirable citizens. This may have been true, for Duffield was brave enough to wear a "plug" hat in Tucson in the early '70s, and to a

man who had nerve enough to do that, encounters with a baker's dozen of gunmen would be mere pistol practice.

One day a certain "Waco Bill" arrived on a wagon train from Los Angeles, and being three-fourths full of a fluid Captain Bourke denotes as coffin varnish, he desired to meet and overcome the celebrated guardian of the peace.

"'Whar's Duffer?' he hiccoughed, as he approached the little group of which Duffield was the central figure, 'I want Duffer; (hic) he's my meat. Whoop!'

"The words had hardly left his mouth before something shot out from Duffield's right shoulder. It was that awful fist, which could upon emergency have felled an ox. and down went our Texan sprawling upon the ground. No sooner had he touched Mother Earth than, true to his Texan instincts, his hand sought his revolver, and partly drew it out of the holster. Duffield retained his preternatural calmness, and did not raise his voice above a whisper the whole time that his drunken opponent was hurling all kinds of anathemas at him; but now he saw that something must be done. In Arizona it was not customary to pull a pistol upon a man; that was regarded as an act both unchristian-like and wasteful of time-Arizonans nearly always shot out of the pocket without drawing their weapons at all-and into Mr. 'Waco Bill's' groin went the sure bullet of the man who, local wits used to say, wore crape upon his hat in memory of his departed virtues.

"The bullet struck, and Duffield bent over with a most Chesterfieldian bow and wave of the hand: 'My name's Duffield, sir,' he said, 'and them 'ere's mee visitin' card.'"

There were other outlaws within the Territory of very different stripe than "Waco Bill" or the "Pride of the Panhandle." There were years, like those preceding and during the early part of the Civil War, when much of Arizona was practically without law, and therefore a refuge for all kinds of desperadoes from other localities. Those were the times when it was said that the California vigilance committee and the peace officers of Texas were the most zealous immigrant agents Arizona ever had.

Many conditions in Arizona served to encourage the vicious to deeds of crime. The border was infested with Mexican outlaws, and a robbery committed by them at an isolated miner's cabin, if accompanied by murder, might easily be laid at the door of the Indians, while innocent Mexicans in turn were accused of crimes committed by vicious criminal whites. Bullion was often carried across lonely stretches of desert or mountain on stage coaches where hold-ups were all too frequent. In 1879 the Phoenix stage was robbed four times within four months. In 1882 the pack train which carried mail and express across the Pinal Mountains into Globe was held up, the express messenger killed and \$10,000 in gold stolen. In Bisbee in '83 five desperadoes, early in the evening, entered the store of Goldwater and Castenada, robbed the safe and, in escaping, shot and killed at least four people. In '89 a female who called herself Pearl Hart, with a man by the name of Joe Boot, robbed a stage in Kane Springs canyon. Although there was an abundance of evidence against her, twelve sentimental pioneers declined to convict a perfect lady of stage robbery, and immediately thereafter were dismissed for the term with caustic and uncomplimentary remarks from Judge Doan upon their action. A succeeding jury convicted Miss Hart on the charge of taking the stage driver's revolver, for which crime she was sent to the penitentiary.

While as a whole the peace officers of the State have been capable, fearless and energetic men. in a few conspicuous instances they seem to have been chosen on the theory that it takes one desperado to capture another. A celebrated case of the criminally inclined officer is found in the story of the Earps of Tombstone. In the early '80s, when lawlessness in southern Arizona was worse than it had been for many years, Virgil Earps was city marshal of Tombstone and Wyatt Earps was deputy United States marshal—this in spite of the fact that both of them were professional gamblers and were suspected of either planning or participating in at least two stage hold-ups. Associated with Virgil and Wyatt were Morgan and Jim Earps and Doc Holliday who, although he hung out a dentist's sign, had gambling for a vocation and manslaughter for an avocation. Bitter enemies of the Earps were the Clanton cowboys of the Babacomari Mountains.

One night in October, 1888, Virgil had arrested Ike Clanton on the charge of disorderly conduct, though it appeared that the arrest was simply made as a declaration of war upon the Clanton gang. Seeming to appreciate the great advantage that being peace officers gave the Earps, and so desiring to postpone hostilities until a more auspicious occasion, the following morning Billy and Ike Clanton, with Frank and Tom McLowery, two other members of their gang, saddled their horses preparatory for leaving town. As they came out of the OK Corral they were met by the four Earps and Doc Holliday, all heavily armed. The Earps opened battle at once, shooting and killing Billy Clanton and Frank McLowery, while Morgan Earps and Virgil received flesh wounds. The Earps at once gave themselves up to friendly authorities who promptly dismissed them.

The Clantons plotted vengeance. Soon after Virgil Earps was shot from ambush, but got off with a wounded arm. Morgan Earps was not so lucky, for one night, while in a saloon, he was shot to death by a man hidden in the darkness, his assailant firing through a rear glass door. Without going into details of the subsequent events, it may simply be said that Frank Stilwell, an enemy of the Earps and a friend of the Clantons, was killed, supposedly by the Earps at Tucson. Later they resisted an officer at Tombstone who had a warrant for their arrest, took to the hills and killed a Mexican in the Dragoon Mountains; afterwards they fled into Colorado where for some unex-

plainable reason Governor Pitkins refused to grant requisition papers from Arizona for their arrest.

The most sanguinary feud ever known in the State was that between the Grahams and the Tewksburys in Tonto Basin in '86-'87. The Basin was a cattle country, but in '86 or earlier, sheep were driven from the north and herded under the protection of the Tewksbury brothers. The Grahams, who were cattlemen, resented this action and gave various hints to the sheep herders that a continued residence in Tonto Basin would doubtless undermine their health. Some of these hints. given after dark, took the form of bullets, which would go singing through the herder's frying pan as he fried his bacon for supper. However, when frightened herders fled, others were put in their places, and soon open warfare was proclaimed by the Grahams. John Tewksbury and a man by the name of Jacobs were running sheep on shares. One day both were ambushed near the Tewksbury house and killed; then, keeping the rest of the Tewksbury family away by a fusillade of bullets from their hiding place among the rocks, the assailants allowed the bodies to be devoured by hogs. This was sowing dragon's teeth with a vengeance. and resulted in a bloody harvest of twenty-three of the Graham faction killed and four of the Tewksburys. Three of the Grahams were hanged by their enemies on the rim of the Mogollons, most of the others were shot from ambush.

The last to be killed was Tom Graham. With most of his faction gone and knowing that the threat of the Tewksburys to "get him" if he stayed would be surely carried out, Tom fled to the Salt River Valley. The writer ate breakfast with him in the morning when, after an all night's ride, he arrived in Phoenix. "They sure would have got me if I'd stayed," he said, "and they may get me yet."

What he feared came to pass; he was shot and killed from ambush as he was hauling a load of grain from a ranch he had bought in the valley to Tempe. Two young women who saw the deed testified that Ed Tewksbury was one of the murderers. John Rhodes, one of the Tewksbury gang, and Ed Tewksbury were arrested. At the preliminary hearing Graham's widow attempted to shoot Rhodes but failed. Rhodes was discharged, Tewksbury was convicted, but on a technicality a new trial was granted, when the jury disagreed.

While these are conspicuous instances, there were many other acts of violence which occurred about that time, the situation becoming so serious that, in a message to the Legislature, Governor F. A. Tritle called its attention to the thefts, murders and general lawlessness specially prevailing in the southern part of the Territory. The President of the United States was petitioned to ask Congress for an appropriation of \$150,000 to be used in the establishment of mounted rangers to protect the State from criminals and Indians.

Of all of the crimes committed in the Southwest, none has been given more publicity than the hold-up and robbery of Maj. J. W. Wham, in

1889. On May 11th of that year, Major Wham was driving from Fort Grant to Fort Thomas, carrying with him \$26,000 in gold, to pay the Fort Thomas soldiers. With him were eleven colored infantrymen and a sergeant. When the party entered a gulch just beyond Cedar Springs they found their way blocked by a large bowlder. Several of the soldiers, while attempting to get the rock out of the way, were surprised by a volley of shots coming from the hillside. Unexpected as was the attack, the soldiers sought shelter in orderly fashion and started to return the fire, but upon seeing that the gallant major had turned tail and was flying down the road, and that the enemy was shooting from stone breastworks, they followed in their commander's wake, leaving the gold for the highwaymen to carry away at their leisure. Eight soldiers were wounded, but none seriously.

An investigation was made by the military authorities, and within a short time eight prominent ranchers of the Upper Gila Valley were arrested, including Dave Cunningham, Dave Rogers, Tom Lamb, Ed Lyman and Wal Follett. The three Folletts were soon dismissed, but the others were bound over for trial. The attorneys in the case were among the most prominent in the Territory; those for the defense were Marcus A. Smith, Arizona's delegate to Congress, and Ben Goodrich. The prosecuting attorney was Henry Jeffords. While the trial abounded in picturesque and exciting incidents, there is not room to enter into them here. Altogether 165 witnesses were examined,

but in the end the jurors found the prisoners not guilty.

The Arizona rangers, which were organized in Arizona in 1901, at first numbered but twelve men, with Burton C. Mossman, a young, energetic cattleman, as captain. Dayton Graham of Cochise County was first lieutenant. Every member of the company was a picked man, of proven ability in handling criminals and of unquestioned nerve and courage. An arrangement was entered into with Colonel Kosterlitsky, commander of the Mexican Rurales, that the command of either might pursue criminals across the border.

From the time of their organization, the rangers proved their value to the State, not only in capturing many desperate criminals, but their activity in pursuing the evildoers resulted in an exodus of many an undesirable citizen. In 1902, T. H. Rynning, former lieutenant of the Rough Riders, was appointed by Governor Brodie to the captaincy of the rangers to succeed Mossman, and like his predecessor, he made an able and efficient commander. By 1903 the company included twenty-six men which, during the six years of its existence, arrested over 1,000 men charged with serious crimes and three times that number for lesser offenses.

Although not acting in an official capacity, one of the most picturesque of Rynning's acts happened in 1906. In the mining town of Cananea, south of the Mexican line, were living hundreds of Americans. In June several thousand striking Mexican

miners were terrorizing the camp. A lumber yard had been set on fire, five Americans and a number of Mexicans killed. With the consent of Governor Ysabel of Sonora, Rynning led a force of 270 Americans into Cananea, and although they did not find it necessary to resort to arms, their presence greatly reassured the American inhabitants.

In 1907 Rynning resigned to become superintendent of the Territorial Prison, and the captaincy of the rangers went to Harry Wheeler, who later, while sheriff of Cochise County, became widely known through the active part he took in the deportation of the members of the I. W. W. and others in the summer of 1917.

The company of rangers was discontinued in 1909 by an act of the legislature as a result of a political quarrel between that body and Governor Kibbey.

THE BOGUS BARON OF THE COLORADOS

When the United States, by virtue of the treaty of Guadalupe Hidalgo and that confirming the Gadsden Purchase, acquired its great southwestern territory, it also, under the terms of these treaties, fell heir to many claims of private persons for large tracts of land granted them, it was alleged, by the Spanish crown.

In New Mexico these claims involved 6,643,938 acres of land, and in Arizona 11,326,108 acres. To consider and adjudicate these claims, Congress, in 1891, passed a bill creating a Court of Private Land

Claims, which was composed of five justices and was organized at Denver, Colorado, July 1, 1891. After completing its work, it disbanded June 30, 1904.

The principal claim for land in Arizona was brought by James Addison Reavis, who, on January 3, 1885, filed with the surveyor general a request for the survey of the land claimed by him and a confirmation of the grant, which he claimed was originally given on December 20, 1748, by Fernando VI, King of Spain, to one Señor Don Miguel de Peralta de la Cordoba, Baron of the Colorados, etc.

The alleged grant was in the form of a quadrangle, approximately 236 miles from east to west and 79 miles from north to south, with its southwest corner 39 miles south of an initial point on the south side of the Gila River opposite the Salt, and included Phoenix and the Salt River Valley, the Gila Valley, many of the richest mines of the Territory, Clifton, Arizona, and Silver City, New Mexico.

Reavis first made his claim by virtue of a deed from a man by the name of Willing, who, it was alleged, inherited it through a long but legally unbreakable chain of descent and transfer from old Don Miguel. However, when the matter came up before the land court, Reavis made the claim wholly through his wife, a Spanish lady by his statement, whom he introduced to the dignified judges by the simple and unassuming name of Doña Sofia Loreto Micaela de Peralta-Reavis, née Maso y Silva de Peralta de la Cordoba, the great granddaughter of Don Miguel. As for himself he had quit being just Jim Reavis and was Don James Addison Peralta-Reavis. Even old ancestral Don Miguel's name had sprouted, and now with all the buds of it nicely fruited, it was Don Miguel Nemencio Silva de Peralta de la Cordoba y Garcia de Carrillo de la Cordoba, grandee of Spain, Sir Knight of the Redlands, gentleman of the king's chamber, Sir Knight of the Golden Fleece, and a lot more.

Now, as a matter of fact, James Addison, either on his own account or that of his wife, had no more valid a claim to a Spanish grant than he had to King Solomon's Mines, or the canals on the Planet Mars, but he certainly did have imagination, and if he had gone in for literature instead of fraud, he would have made Jules Verne or Rider Haggard look like the drabbest of realists. Men have worn striped clothing and lived behind bars half their lives for attempting to steal a little silver plate, J. Addison very nearly got away with almost 20,000 square miles of ranches, mines and cities.

To begin at the beginning, our friend with the big imagination made up Don Miguel out of his own over-active brain, and then after taking one look at his own creation decided that so gallant a gentleman could be none less than the king's bosom friend. By the way, for some reason J. Addison had shifted monarchs on the old Don, for now it was Philip V who was his patron instead of

Fernando VI, but that was a mere detail. The important thing was that one afternoon his Royal Highness, just to show what a good fellow he was, said to Don Miguel, "Don, old man, how would you like to be Baron of Arizona?"

"I'd like it fine," says Don M. "Where in the wide world is Arizona?"

"Oh, it's over on the other side of the Big Water," says the King. "It has a lovely winter climate, and you don't suffer with the cold even in the summer. Besides, you can't dig any place without striking a gold mine."

"Wonderful!" says Don M. "How much land goes with the title?"

"Help yourself," says the King. "There's lots of it there."

"Thank you kindly," says Don M. "Put me down for about twelve million acres."

Easy, wasn't it, when all one had to do was to dream it—like making money on one's own hand-press.

It is said that Mr. De Quincey could conjure a dream like that almost any evening with two pills of opium. We used to know a Chinese laundryman who could do it with one. But what Reavis wanted to do was to be able to wake up and find his dream still going on; in other words, he wanted to make people believe that he, Jim Reavis, of Henry County, Missouri, who used to be a street car conductor and later a newspaper solicitor was, by marriage at least, a sure enough Spanish Don entitled to wear a coat all spangled over with

orders of nobility and both pockets full of emoluments.

It sounds like something of a task, doesn't it, when one thinks of all the things he had to do—first, make it appear that Don Miguel was a real person; second, show that the king did really grant him the barony of the Colorados or Arizonaca (it had several names), and last, that Mrs. Reavis was really the heir to the old Don?

To pick up the thread of our story where the plot begins to thicken, in the '70s there lived in Sherwood Valley in Mendocino County, California, an olive-complexioned, black-haired young woman whose father was an American, John A. Treadway, and whose mother was an Indian woman. Only a few people seemed to know just who the parents of the girl were, as she lived with Americans for some years. Reavis met her while on a trip devoted to the manufactory of evidence to support the old Willing claim, and suddenly decided that it would be much easier to assume this girl was the descendant of the mythical Don Miguel and marry her than to carry the line down through Willing. No sooner planned than done. Reavis planted the girl's family tree at once, and had it bearing dons and grandees inside of a week. It was more difficult, however, to coach the girl on the part she was to play, but Reavis was equal even to that, and for years drilled her daily until at last she could not only act the part of a grand lady, but seems to have half believed that in very truth she was the Doña Sofia, the heir to the Castles on the Gila.

In order to make Don Miguel a real person, Reavis went to Guadalajara, Mexico, where in some mysterious manner he was able to spend unobserved hours alone with the old vice-regal records, and after he had finished with his quill pen and the ink was nicely dried, all through the old volumes and papers there was evidence and to spare bearing on his grant, including a decree creating the Barony of Arizona and a book of genealogy showing the noble descent of Mrs. Reavis.

So pleased was Don Jim with what he had been able to accomplish that he gave \$1,000 for an altar cloth for the cathedral at Guadalajara and erected a \$15,000 drinking fountain at the city of Monterey.

Wishing to feast his eyes on his ancestral halls and hills, Reavis took his wife, the Doña Sofia, who by this time knew her lesson perfectly, across the blue Atlantic, and with his grand air seems to have had no more difficulty in obtaining access to the royal archives at Madrid than he had in looking for what he wanted in Mexico. Here, too, when he had finished poring over the records, everything he wanted there was there.

By this time Don Jim had almost made himself believe that he was the real thing. He lived nobly at a leading Madrid hotel with a retinue of liveried servants. As the Baron of Arizona he entertained the American legation and with his wife was received with the honors of nobility at the Spanish Court.

Where did Reavis obtain the money to do all

this? That was easy. After convincing some of the most astute attorneys of America of the genuineness of his claim, it is not strange that he was also able to scare owners of mines and ranches within the limits of his "barony" into paying him good prices for quitclaim deeds, and to sell interests in his broad acres to capitalists for real money.

For a short time he lived at Arizola, on the Southern Pacific Railroad, a short distance east of Casa Grande, where his wife received her guests in robes of velvet and his twin boys, Carlos and Miguel, covered their noble heads in caps of royal purple with monogramed coronets emblazoned upon them. It is said that from 1887 to 1893 Reavis' living expenses for himself and his family could not have been less than \$60,000 a year. He divided most of his time between expensive hotels in New York and Europe, a country house on Staten Island and a mansion in California. His familiars included millionaires and high government officials.

In spite of all this, before the formation of the land court, when Reavis sang his siren song before Congressional committees and to the surveyor general at Washington he was confronted with the unenthusiastic ears of agnosticism. His story might be true, but the gentlemen wanted to be shown.

As time went on the gullible goldfish grew more chary of his bait; in brief, his story grew stale, and ugly rumors were repeated about the validity of the grant. Nevertheless, with magnificent audacity, Reavis brought his claim before the land court, and his former counsels having deserted him, among whom it is said was Robert G. Ingersoll, with the assistance of an obscure attorney he tried his own case, producing what at first seemed an overwhelming weight of testimony in his favor. There were cedulas, decrees and writs in Spanish and English; there were royal seals, royal signatures and rubrics; there were not only genealogies but portraits of noble ancestors.

But it was all of no avail. Ever since the claim had been filed, experts in the employ of the government had been investigating the case and the work they did was worthy of a Sherlock Holmes or an Auguste Dupin. From the records at Madrid it was learned that the will of the second Baron of Arizona, passing down the barony, was undoubtedly a forgery; and at Guadalajara a careful scrutiny of the records showed that a cedula, advising the city that the king had appointed a new viceroy, had been, by marvelous forgery and substitution of words, transformed into a decree creating the barony of Arizona. In a book of genealogies, thirty-five leaves of solidly forged matter, showing the noble descent of Mrs. Reavis, had been interpolated. Even Mrs. Reavis' plebeian blood was revealed. As witness after witness gave his evidence, slowly the edifice of fraud so ingeniously built up by Reavis crumbled about him.

Not only was his case decided against him, but at its close he was immediately arrested for fraud, convicted in the district court, and on July 18, 1896, went to the penitentiary of New Mexico, where he remained until April, 1898.

Upon the unfortunate wife the blow fell the hardest. From being an honored guest at the Court of Spain, a baroness in her own right, she became a menial in the houses of Santa Fe, glad to obtain even the humblest work to sustain herself and her two boys.

Wm. M. Tipton, one of the government investigators, said of the claim: "No plan was ever more ingeniously devised, none ever carried out with greater patience, industry, skill and effrontery." It was all the work of one man, James Addison Reavis, the ex-street car conductor, the ex-solicitor for newspapers, and it was, perhaps, the most gigantic fraud ever attempted against the government.

CHAPTER XVII

TRANSPORTATION AFTER THE WAR

PACK-TRAINS, STAGES AND 16-MULE FREIGHTERS

NTIL well into the '80s the horse, the mule and the burro were basic factors in all Arizona transportation. The burro was the faithful friend of the Mexican laborer or the prospector. He required little care, any kind of food would do, including kitchen scraps or desert browse; from birth to death he would never know curry-comb and he would carry on his back anything from firewood from the hills to dried grasses from the mesas. Often the size of his load, especially if it were hay, would so eclipse him that naught could be seen but a pair of long ears before and a tip of a tail behind.

On account of their larger size and greater strength, the mules naturally made better pack animals than the burros. They were used by the army in transporting camp equipment and supplies over the mountains; by traders in the early days between Tucson and Guaymas; by miners to carry supplies to their lonely shafts situated far up some apparently inaccessible canyon; and again to bring ore down to mill or smelter. In fact, they

were used anywhere and everywhere to transport goods in countries impassable for wagons.

Among the best pack-trains ever seen in Arizona were those organized by General Crook in his campaign against the Apaches. Bony giants and undersized rats were discarded and every animal chosen was in accordance with a regular standard as to weight, height and age.

A pack-train had a nomenclature all its own, the suadera was the sweat cloth, the aparejo was the pack cushion, the burden to be carried was called the cargo, the train itself was the atajo, the packer was the arriero, the pack master the patron, and the head loader the cargador.

Leading the mules, which, of course, followed the trail in single file, would be the white, bellmare, which the mules would follow with unswerving fidelity.

As for loads, it is said that a small billiard table was carried to Tiger Camp in the heart of the Bradshaws by one mule, and an organ for the wife of a superintendent, at almost any mine, would offer no unsurmountable difficulty to a mule with musical ear and a strong back.

A trail-broken mule, when traveling in the mountains, always walks on the outside edge of the narrow path, for the reason that if he fails to do so his pack is apt to collide with an overhanging cliff. The story is told of a tenderfoot mule who was carrying a cylindrical section of a heavy sheet iron chimney, resembling in size and appearance a large drum. The mule, poor soul, knew no better

than to walk on the inside of the trail, which followed a narrow shelf jutting out from a precipitous canyon wall. So, jogging unsuspectingly along, abruptly the cylinder came in contact with an overhanging rock. The mule toppled dizzily, tried vainly to restore his equilibrium and went over the brink down a deep, sliding incline. As the cylinder struck the ground it bounded, and the mule bounded with it, the two together turning a half-summersault; for a brief instant the mule's hoofs touched the treacherous slope, then over he went again, and for a second time the resilient cylinder struck the ground and once more the mule described a graceful parabola through the atmosphere. A dozen times this touching scene was repeated before the mule reached the bottom. The arriero watched the poor animal in horror, and when the final bump at the bottom was made listened for the crunching of bones; but what he heard was something different. The last bound landed the animal feet downward in a sandy wash; automatically the legs stiffened, the neck outstretched, and a bray that shook the hill came from the mule's undaunted throat. But thereafter he walked on the outside of the trail.

As late as the '70s that ancient vehicle of Mexico, the careta, still plied up and down the Santa Cruz Valley between Hermosillo and Tucson. No iron entered into the construction of these primitive two-wheeled carts, the various parts being fastened together with wooden pins and strips of rawhide, while the wheels were formed of sections of tree

trunks. To them were usually hitched two oxen with the bow tied to their horns. One always knew when a careta was approaching, even before it came in sight. So outrageous was the squeak of the ungreased axles that it is said the sound of one could be heard in Tubac as the vehicle crossed the border twenty miles below.

In vast contrast to these was the great Concord stage-coach which has been mentioned before. The body of the coach was hung on thoroughbraces, which were stout leather straps attached to C-springs, front and rear, and which made a wonderfully easy-riding carriage.

In the mid-'70s a stage line running coaches like these carried travelers from Dos Palmas. California, the end of the Southern Pacific. through Ehrenberg to Wickenburg, where one line branched through Antelope Valley to Prescott, while the main line went via the Agua Fria to Phoenix and then on to Florence and Tucson. In the '80s, when roads of one kind or another had been opened up pretty well throughout the Territory, all of the principal towns were connected by stage service, though on some lines buckboards or covered spring wagons would be used. Where the country did not permit roads, a pony express would be established, when the rider, if his trail lay in the Indian country, would take his letters in his saddlebag and his life in his hands.

One early express was established in June, 1864, by Robertson and Parish, which went from Prescott via La Paz to California. Another line carrying

mail from Prescott to California was operated by Duke and Company, and went via Mojave. In those days the mail came through once in two weeks, providing the carriers were not stopped by Apache arrows. Letters could be sent to the East from Prescott by military express with military escort, though both soldiers and express riders would sometimes be killed.

After 1878, when the Southern Pacific reached Yuma, passage eastward was made over the Kearns and Mitchell Stage Line, which would carry a passenger via Tucson to Austin, Texas, for \$240. Even as late as 1880, mail was carried via buckboard stage from San Bernardino, through Mojave and Prescott on to Santa Fe. In the '70s two stage lines operated between Tucson and Sonora, and in the early '80s a thriving business was done on the Tucson-Tombstone Line.

Drivers, of course, were chosen for their bravery and marksmanship as well as for their skill in handling horses. When valuable expressage was to be carried there would be a messenger aboard who, besides carrying the usual six-shooter, would be armed with a sawed-off, double-barreled shotgun. Often enough occasion was found to use it against road agents or Indians.

The babbling brook does not enter prominently into Arizona desert scenery. On these long, hot, sandy jornadas the only water for travelers or teams would be obtained at desert wells, at which the stage stations were located. Water would be hauled up one or two hundred feet in a barrel, and the windlass which raised it would be operated

by a plodding, blindfolded mule. Besides the well and the corral there would be a building or two where supplies both liquid and otherwise could be obtained, and while it was all right for the horse to take his water straight, it was usually expected that the human traveler would precede his water with something stronger.

All freight was carried in high-sided wagons. A first-class outfit carrying freight from Ehrenberg to Prescott would consist of a lead wagon and two or three trailers, and would be drawn by from sixteen to twenty-four mules, driven by some Overland Jack from his place on the saddle of the "nigh" wheeler. Instead of a handful of lines used by the jehu in the circus parades, Overland Jack used but a single one—the jerk-line. One long steady pull and the leaders would turn with the pull to the right, a succession of jerks and the little mules in front would turn in the opposite direction.

In freighting in a mountain country, bells would be fastened to the beasts' hames so that in going up and down long, narrow, winding grades a driver would be apprised when a team was coming toward him, and so could sidetrack his train at a passable place.

Every freight outfit, besides the driver, had a swamper who rode on the wagons, looked after the load, and shared the responsibility of guarding the cargo in case of attack. Every freighter, at all times, kept a rifle handy, and in Apache country prudent drivers would go in as large companies as possible.

CHAPTER XVIII

ARIZONA MINES AFTER THE CIVIL WAR

RIZONA has ever been the land of the Golden Fleece. It was the lure of gold that induced the vicerov of new Spain to send Fray Marcos to spy out the land. It was the same irresistible impulse that caused Coronado to brave desert and death in his expedition to the legendary Cibola; and, though he returned to Mexico broken-hearted in the belief that he had followed a will-of-thewisp, nevertheless the treasure was always there, but so securely locked in the fastnesses of the hills that its presence was not suspected. Little by little a few of the treasure chests of Mother Earth were discovered and opened; and, haltingly, with many hopes deferred and promises unfulfilled, with many chance successes and sudden fortunes, with riches that came by accident, with riches that came only from patient toil and scientific methods, mining in the State has advanced until today Arizona leads the nation in the production of metallic wealth.

It ought to make an interesting study, this romance of Arizona's treasure troves, yet we must confess that as we read over what has been written here—for this introduction is set down last—we find much that is prosaic.



HOPI SNAKE DANCERS Photograph Furnished by E. L. Graves



The story of a mine after it is discovered—its transfers from one set of men to another-is mostly names and dates, and has usually the same fascination possessed by a chronology, as for instance in Nehemiah: "And Jeshua begat Joiakim," and "Joiakim begat Eliashib," and "Eliashib begat Joida," and there you are. So we have begun to wonder if the reader, to get the true romance from a chapter on mining, should not do considerable reading between the lines. We see how the members of the new syndicate that acquired the mine made a million dollars in three months; but if the reader of this chapter is like the writer, the sentence means but little, for to us a million dollars is a wholly mythical amount. Besides, it wasn't we that got the million; we do not even know the man. It is hard to enthuse to the boiling point about a million dollars of unearned increment acquired by a man you never even heard of before. We would rather try to imagine how prospector John Doe felt as he followed up his line of float. Would he find the mother lode or not, and would it be worth anything after he did find it?

The case of Richard Roe as, with swinging pick, he follows his tiny vein, also has its interest. Would it widen to great riches or would it pinch out altogether? What was in his mind that afternoon as he crimped the edges of the cap about the fuse with his teeth? Certainly not that the fulminate of murcury might blow his fool head off. An old powder man forgets that part. No, he was wondering just what he would do with the million dollars he would get if the shot he was about to fire would open up a true fissure vein about six feet wide that would run five or six thousand dollars of gold to the ton. Some way we find it easy to get en rapport with that man. He hasn't acquired the million dollars yet, he only imagines what he would do with the million dollars if he did get it. Even a sheep herder can feel that way.

Then, too, we can be interested in the unusual, though it be but a variation of the old story of the burro, the mule or the horse that led the prospector straight to the biggest mine in all the country. (By the way, think of all of the mines that would be still undiscovered, and the fortunes that would be still unmade and undrunk if the old-time prospectors had used Fords, and all the burros had been turned into "bastrama" and eaten, as they say the program is to be from now on.)

Yet putting persiflage aside, there are few stories bigger than those concerning the lure of the metals. Men have been crushed to death in drifts to obtain gold for a woman's jewels—or to save a country; they have been scorched at smelter mouths to reclaim silver for a magnate's sideboard—or copper to carry power across a continent.

Perhaps the biggest story of all is that which tells how one man, out of the strength of his own mind and will, wrings success where all others have lost. A mine wrecks company after company; then comes a new syndicate with a master mind at its head, and failure is turned to success.

It is a battle, not of cannon and sword, but of chemistry and modern efficiency. If refractory ores can be worked for so much the fight is won, if the cost is but a few cents more per ton, the fight is lost. The battle ground is the laboratory—the strategists are the chemists and the efficiency engineers.

Finally there is the part played by the man with the pick-a story of muscle and sweat and danger. It would take a Victor Hugo to depict that!

Returning to our narrative, we have seen how mineral locations along the present Mexican Border were first worked in a small way by the Spaniards in the eighteenth century; we have also noted briefly the mining of Americans, who, like Ehrenberg and Poston, came into the Santa Cruz Valley in 1854; of the shafts that were dug in spite of the hostility of the savages; of the mills and furnaces that were successfully constructed, though the lumber had to be whipsawed and brought from mountain tops and all the machinery hauled over many weary miles of desert.

The Ajo copper mines, in the southern part of the State, were operated in the fifties, and the placers of the lower Gila, worked about the same time, yielded fortunes. In the second year of the Civil War, placers were discovered along the Colorado, and by reason of their being, towns like La Paz, which was situated on the Colorado, 124 miles above Yuma, and once boasted of a population of five thousand people, sprang into existence. The glory of La Paz was short lived, for Ehrenberg, six miles farther up the river, on account of its better steamboat landing, in 1863, took the population away from the earlier town and left it an abode for owls and coyotes.

Before the placer excitement ended, in 1864, \$2,000,000 in gold had been taken from the sands of Yuma County, whereupon mining interests shifted to lodes.

In recent years placer mining has revived in Yuma County. In the Plomosa district, east of the Colorado, in the Posas Valley, from 1904 to 1912, gold to the value of \$32,314 has been taken from sand, and from other districts, from 1906 to 1912, \$52,985.

In spite of the continual hostility of the Hualpais, who had the disagreeable habit of shooting arrows at miners from ambush, prospecting in Mojave County began as early as 1858, and mines were worked in considerable numbers from 1863. There was every evidence that the country was exceedingly rich in minerals. From 1880 to 1883 the county is said to have produced \$60,000 in gold and \$485,000 in silver. According to Hinton, the product in 1887 was \$200,000 per month. One of the biggest of the early discoveries was the Moss gold mine, near Hardyville. It is reported that, in 1865, two tons of its ore netted \$185,000 in gold. The McCracken and Signal, in the southern part of the county, were located in 1874, and vielded a total of over a million dollars before they suspended operations in 1880. Hinton states that up to 1876, 2,000 claims had been recorded in the county.

Mojave County is now dotted with rich mines, so many indeed that our limited space will not permit even a recital of the names. Mention, however, must be made of the Tom Reed, in the Oatman district, which in six years produced over \$4,000,000 in gold. The Gold Roads is also a heavy producer of the yellow metal.

Valuable turquoise deposits have been found near Mineral Park, southeast of Chloride.

Both placer and lode mining were actively engaged in during the early years after the war, in Yavapai County, which at that time included all of Arizona north of the Gila and east of Yuma County.

About Prescott, gold indications were found all through the hills, and almost every stream had rich placers. The leading mining districts were Weaver, Hassayampa, Lynx Creek, Turkey Creek, Humbug, Peck and Date Creek.

Bancroft gives the gold products of Yavapai, in 1873, as \$103,600; and from 1880 to 1883 as \$110,000. The silver production in 1880-83 is given at nearly two million.

It is interesting to read the names that the early Yavapai miners gave the prospects from which they hoped to derive their fortunes. The sentimental ones chose such appellations as "Aurora," "Naiad Queen," "Minnehaha," "Mezeppa," "Sunrise" and "Sunset." Some practical miners simply set down their claims as "Brunson and Barnum,"

or "Hatz and Collier"; the more fanciful christened their properties the "Big Bug," "Black Jack," "Little Joker," "Jack-on-the-Green," "Plug Ugly" and the like. An optimist records his mine as "Hidden Treasure," while a pessimist labels his, in advance, "Little Fraud."

THE VULTURE

The greatest of all Yavapai County's mines (now a part of Maricopa) and indeed the richest gold mine of the State, was the Vulture, situated eleven miles west of Wickenburg. It was discovered in 1863 by Henry Wickenburg, who gave his name to the town. The old prospector knew that he had a mine the moment he saw it. for scattered over the surface of the ground were pieces of quartz from which gold could be picked out with a pocket knife. There was no water at the Vulture and all of the ore had to be hauled over a desert road to the Hassayampa River, where it was reduced in arastras which had been set up by contractors, who would buy the ore from Wickenburg at the mine, paying him fifteen dollars a ton for it, and taking out the ore themselves. The main Vulture claim was sold to B. Phelps, a New York mining man, in 1866, for \$75,000. Thereafter it changed hands many times before the lode was finally exhausted. It has been said that altogether \$10,000,000 in gold was taken from the mine.

Other prominent Yavapai mines included the Tiger, the Peck, the Tip Top, and the Senator,

Octave, and Congress. The richest placers of the county were at Lynx Creek where over a million dollars was taken from the gravel. Altogether, Rich Hill, in the Weaver district, yielded a half a million dollars in nuggets, from an acre, on its four-thousand foot summit, and another half a million from the gulches on its sides. Placer mining in the Weaver district from 1905 to 1912 produced \$55,417 in gold.

A half million dollar smelter, now operating at Humboldt, handles the ores for numbers of small Yavapai County mines. There are also operating mills at Crown King and Mayer.

The Monte Christo mine, a few miles northeast of Wickenburg, is a silver-copper property of great promise, its thorough development work showing a splendid body of ore.

The United Verde Extension in 1916 opened up a wonderfully rich body of copper ore, and stock in the company, which had gone begging at fifty cents, rose to \$42.00

THE SILVER KING

In Pinal County, which was organized from parts of Maricopa, Pima and Yavapai in 1875, 975 mining claims were recorded by 1876. The county in its early days was noted for its richness in silver mines. Nine tons of ore from the Stonewall Jackson yielded \$200,000 in silver, and in 1881 the Mack Morris mine in Richmond Basin produced \$300,000 of the same metal, but the greatest of all of the county's silver mines, indeed

the greatest in the State, was the wonderful Silver King, on the western side of the Pinal range, whose mill was located at Pinal.

It was discovered, in 1872, by a soldier by the name of Sullivan who had no proper appreciation of the value of the black, metallic lumps which flattened when he pounded them with a hammer. Charles G. Mason, a rancher for whom Sullivan afterwards worked, knew the lumps for silver, and later, after Sullivan had left his employ, made several attempts to find the lost mine. In 1875 Mason, with four companions, while returning from the Silver Queen in the Globe district with a pack train of ore, was attacked by Apaches and one of their number killed. The body was buried at a temporary military post at the summit of Stoneman's grade called Camp Supply, and when the miners reached the bottom of the grade, Isaac Copeland, one of the party, went in search of a mule and found it standing on some croppings at the side of the trail. He broke off a piece of the metal; one look at it was enough. It was the black stuff that Mason had talked about! The lost mine was found! A partnership to own the Silver King. as the property was christened, was formed, with each of the party-Mason, Copeland, W. H. Long, and B. W. Regan-taking one-fourth interest. Copeland and Long soon sold out to their partners for \$80,000, and the two who stayed in made more than that out of the profits during the next six months. Mason, who then thought it was a good time to sell, parted with his holdings to Col. S. M. Barney, of Yuma, for a quarter of a million dollars, and Ragan also later sold his interest to Barney for three hundred thousand.

The editor of the Pinal Drill puts a fine dénouement on the story. "Several years later when the Silver King was in full operation an aged man came slowly into the settlement of "Picket Post" (Pinal's original name) and gazed with interest at the busy scene about him. He went to the office of the Company and announced himself as Sullivan, the old soldier, the original discoverer of the mine, and asked for work. He was identified, and taken into the Company's employ. He had been working as a farm hand in California, trying to obtain sufficient means to return to Arizona."

The Silver Queen referred to in the Silver King story was abandoned after being worked a number of years because, as the workings went deeper in the ground, the silver ore was so mixed with copper that, with the then methods, it could not be worked with profit.

Now it is the successful Magma mine producing gold, silver and copper, working 275 men and taking out 225 tons of ore daily.

Pinal County's placer mines are limited to the "Old Hat" district where \$7,106 in gold was mined from 1903 to 1912. There is a tradition of a lump of gold weighing 16 pounds being found in the gravel and that the finder was murdered for his treasure.

Within the counties of Pima and Santa Cruz, wherein lies the Santa Cruz Valley, which, as we

have seen, was the home of the earliest worked mines in Arizona, are still to be found properties rich in gold, silver, copper and lead.

The World's Fair mine, situated two miles west of Harshaw, located in 1879, has produced since that date over a million of dollars in the four principal Arizona metals.

The R. R. mine in the Palermo district is also a million dollar producer, its total products equaling that amount between May, 1911, and October, 1914. It is now closed on account of litigation.

Placer mines in the Quijotoa district washed out \$30,268 in gold between 1903 and 1912, and in the Greaterville district \$30,294 within the same period. It is estimated that the total Greaterville placer production to date amounts to \$7,000,000.

Aside from the copper mines, which are considered elsewhere, the rich silver mines of the Tombstone district occupy first place in Cochise County history, both as to value of output and romantic interest. In the winter of 1877-1878 a tall, lanky prospector drove his burro over the Apache-infested mountains east of the San Pedro. His clothing was worn and patched with deer and rabbit skins, his long, scraggy beard was as unkempt as his hair. His name was Ed Schieffelin. One day as he started out from the Brunckow mines, where he had been doing assessment work, a friend shouted to him, "Whar ye goin', Ed?"

"Just over the hills to look for stones," called back the prospector.

"Wal," commented the friend cheerfully, "the

most likely stone for you to find will be your tombstone."

After that, when Schieffelin came upon the rich silver float, and traced it to a ledge which looked wonderfully promising, he said grimly, "This tombstone is sure good enough for me."

Schieffelin took a sample of the ore to the Signal Mill in Mojave County, where his brother was living. Much impressed by its richness, as well as by Schieffelin's story, a party was made up, and returned to the claim. Although the original location was of but moderate value, later claims were richer, and soon the Tombstone boom was on.

Following the usual custom in telling of the discovery of a mine, we now introduce a mule—in fact, several. These particular mules belonged to Ed Williams, and one of them, as he wandered off, trailed a tie-chain behind him. The next morning, following the trail, Williams noticed a metallic gleam where the chain had worn the surface of the rock, and, behold, the great Contention mine was discovered! To settle the "contention" that gave the claim its name, Williams and his partner took the upper end of the property, which they called the Grand Central, and Schieffelin and his friends acquired the lower—the Contention. Schieffelin soon sold the Contention for \$10,000. Afterwards it produced millions.

The seven big mining companies operating in the Tombstone district were, the Contention, Consolidated, the Tombstone Mining Co., the Grand Central, the Empire, the Stonewall and the Vizina. At a depth of 500 feet water was struck in the Sulphuret shaft and in such quantities that the cost to pump it was practically prohibitive. However, pumps were installed in the Contention and the Grand Central, but the underground flow ran from one mine to another, and as the owners of the other properties refused to join with the companies which were pumping, work of necessity was soon abandoned. The final shutting down of the Contention occurred in 1886 when the surface works burned.

An attempt was made by E. B. Gage and associates, in 1901, to once more operate the Tombstone mines. They sunk a new shaft near the old Contention, going down 1,080 feet. When water was encountered they installed the most efficient system of pumps their engineers could devise, but the result was a failure. At the maximum they were pumping 8,000,000 gallons of water a day, for which time the fuel cost alone was \$700.

COPPER

While it has been estimated that the dividends from gold, silver and lead produced in the early days of Arizona's history amounted to \$100,000,000, it was not until the great copper properties of the State had begun to be developed that Arizona really became a world power in the wealth of its minerals, producing in one year, 1916, metals to the value of \$203,000,000.

The bulk of the great copper production of the

State comes from eleven companies, which are in order of dividend amounts paid, The Copper Queen, United Verde, Calumet and Arizona, Arizona Copper, Old Dominion (consolidated companies), Detroit Copper, Superior & Pittsburg, Miami Copper, Shattuck Arizona, Shannon Copper and Ray Consolidated, which have paid dividends of record to 1916, amounting to \$225,000,000.

THE COPPER QUEEN

To Jack Dunn, a Government scout, belongs the honor of discovering the Copper Queen, one of the greatest copper producing mines in the world. In 1877 while on a scouting trip in the Mule Pass Mountains, where the city of Bisbee now stands, he noticed some copper float that looked promising.

Returning from his trip, Dunn, at Ft. Bowie, met George Warren, a prospector of the average shiftless, optimistic type, told him about his find, and grubstaked him on the usual basis that the man who furnished the provisions should own half the property found. John Cady, an Arizona pioneer, says that Warren was also grubstaked about this time by George Stephens at Eureka Springs. In any event, on December 27, 1877, Warren, with four others (neither Dunn's nor Stephen's names appearing) located the Mercey claim, which was afterwards called the Copper Queen.

During the next few months a number of other claims were located, in several of which Warren had an interest, but his finds did him little good; he soon sold out whatever interest he had in the various properties and squandered the money. It is said that he lost one claim in a drunken wager over a horse race. Warren drank himself into poverty—almost to dementia—and after living a number of years on a pension from the Copper Queen Company, died at Bisbee.

The modern development of the great Copper Queen mine may be said to have had its genesis in 1880 with the arrival of Dr. James Douglas who had just come from the inspection of the United Verde. At that time Edward Riley, who had taken a bond on the mine, had disposed of it to a San Francisco firm of engineers, Martin and Ballard, who erected a small furnace and smeltered some ore.

Upon recommendation of Doctor Douglas, the Phelps-Dodge Company purchased property adjoining the Martin-Ballard-Riley claim at a cost of \$40,000. It is said that both mines, seemingly, had about exhausted their paying ore, when a foreman, J. W. Howell, on his own initiative and against orders, started a drift which finally broke into a remarkably rich body of ore.

Afterwards the Copper Queen acquired the Holbrook, Neptune and other properties which ultimately became their most profitable holdings.

Copper Queen ores average about six per cent copper. The present operating company (1918) employs 3,000 men and handles 2,500 tons of ore daily. Its great smelters, models of their kind, are located at Douglas.

CALUMET AND ARIZONA

The Calumet and Arizona mines, which rank third in the state as dividend payers, are also in the Warren district. The original owner of the Irish Mag, which became the nucleus of the properties of the company, was a queer, misanthropic character named James Daley, who lived in Mule Gulch, in the outskirts of Bisbee. sisting arrest, Daley shot an officer and fled into Mexico. Afterwards a saloon keeper by the name of Andy Mehan produced a bill of sale of the mine to himself which bill of sale was attached by Cohan Brothers, merchants living in Tombstone. A second claimant for Daley's mine was Martin Costello, who acquired the title by buying the claim of a Mexican woman who said she was Daley's legal widow. A second wife and third claimant appeared on the scene from Leadville. The outcome of the litigation, which lasted for ten years, was that Costello got the mine, which he sold to the "C. & A." for over a half million of dollars.

The mine is a deep one. At the 850-foot level small bunches of ore were found, and at the 1,050, a splendid body of copper-bearing rock was encountered out of which over \$10,000,000 was paid in dividends.

A small smelter was built near Douglas, which was put in operation in November, 1902. Following a policy of expansion, development companies were formed, these being known as the Junction Development Company, the Pittsburg and Duluth Development Company, the Calumet and Pitts-

burg Development Company, and the Lake Superior and Pittsburg Company, and in 1910 all were brought into the Calumet and Arizona Mining Company, giving the latter organization more than 2,000 acres of mineral land. One of the latest acquisitions of the Company, as noted elsewhere, is the New Cornelia property at Ajo.

THE SHATTUCK ARIZONA

The Shattuck Arizona is a neighbor of the Copper Queen and the Calumet and Arizona, and though its output is given as only about 500 tons daily, it is ninth on the list of dividend producers. It is often called the "Biggest Little Mine," for while its surface area is small, it is big in every other way.

Its cost of production for 1912 was given as 7.22 cents on 13,000,000 pounds of copper.

It is interesting to note that the Shattuck contains a larger variety of minerals and produces commercially more different minerals than any other mine in the State. Some of its ores have high values in gold and silver.

A drift on the 300-foot level encountered a cave, wonderful in its beauty, with a stalactite-studded dome eighty feet high, about which hang corallike deposits in many beautiful colors.

THE UNITED VERDE

The United Verde, Senator W. A. Clark's great mine at Jerome, is perhaps the best known copper mine in the State. The earliest location in the Black Hills section, where the mine is situated, is supposed to have been made, in 1877, by General Crook's famous scout, Al. W. Sieber, and called the Verde from the river, not far away.

In 1877 the Verde mining district was organized. Among the owners of locations in the district a little later were Angus and John McKinnon, who were working the Wade Hampton. In 1882 they sold their claim to F. F. Thomas, who believing that a big mine lay within the steep hillsides, bonded the adjoining Eureka, the Hermit, the Azure and the Adventure Chromes, and took in George A. Treadwell, the mining expert, as a partner. The United Verde Copper Company was organized in 1883 with Thomas as superintendent and general manager. A fifty ton smelter was built.

While the smelting of the ores proved the mine to be wonderfully rich, not only in copper but in silver as well, reduction processes were primitive and transportation to the Atlantic and Pacific Railroad at Ash Fork was so expensive that in 1884, when copper was worth about seven cents a pound, the mine was shut down.

Governor F. A. Tritle secured a bond and lease on the property in 1887, but conditions did not improve enough to put the mine on a paying basis. Still, much rich ore was taken out and Governor Tritle was a lavish host to the many visitors who came to Jerome to inspect the mine.

At the request of Governor Tritle, Prof. James Douglas, who afterwards was prominent in the development of the Bisbee mines, examined the United Verde properties, but finally reported that he thought the mine too far away from a railroad to be worked profitably.

Soon after, Senator Clark visited the camp, bringing with him his mining experts, J. L. Giroux and John L. Thompson. As a result of their investigations Clark purchased the mine, and under scientific development, turned it into one of the greatest paying properties in America. He built a narrow-gauge railroad from the Sante Fe Prescott and Phoenix to the mine in 1894, and in 1915 abandoned the smelter which was located at Jerome, and now reduces all of the Company's ores at Clarkdale on the Verde, where at an expense of \$3,000,000 there has been constructed a plant that is one of the most perfect of its kind in the world.

THE OLD DOMINION

The first locations of record in the Globe district were the Globe and the Globe Ledge claims, which were made in 1873 by a group of prospectors from Florence. Their locations were made on a large iron and copper stained out-crop, which is now a part of the Old Dominion mine. The copper claims received but little attention for the first few years as, encouraged by such findings as the Silver King, prospectors were looking for rich gold and silver ores.

The first mining camp to be established in the district was called Ramboz, after its founder, a miner by the name of Henry Ramboz.

On account of better location and water supply, in about 1876, a camp was located on Pinal Creek, near the Globe claims, which name was given to the settlement.

Numerous mines in the vicinity that became famous for their rich silver ore include the McMillen, the Mack Morris (sometimes spelled MacMorris), the Stonewall Jackson and others. Records of production are non-existent, yet the mines around the McMillen are estimated to have produced about \$750,000, of which \$600,000 came from the Stonewall Jackson. The Mack Morris, which was located in the Richmond Basin, is credited with producing \$650,000.

Gradually, however, the claims of copper began to attract attention and, in 1881, the Old Dominion was mining carbonate and silicate copper ore on the Chicago and New York claims near Bloody Tanks, about a mile and one-half from the present town of Miami, and erected a thirty-ton furnace. The deposit was soon exhausted and the furnace was moved to the Globe, where the Globe Ledge and other claims were grouped under the name of the Old Dominion mines.

In 1886, the high cost of operation and the low price of copper proved too great a handicap for the operators to overcome, and by the end of the year the mines closed down. The Old Dominion up to that time is reported to have produced 23,000,000 pounds of copper besides some gold and silver. The company was reorganized in 1888 and again in 1895, when there was formed the Old Do-

minion Copper Mining and Smelting Company, which is operating the property at the present day.

The Old Dominion is fifth in the list of the State's largest dividend producers. It has 1,400 men on its payroll and about 500 tons of ore are taken out daily.

MIAMI COPPER

The Miami Copper Company's mines, eighth in the State's list of dividend producers, are situated at Miami, a short distance west and north of Globe, where low, red, iron-stained hills in the early '90s induced "Black Jack" Newman, Jim Falls, J. P. Oates and others to make location on the ground now owned by the Miami Copper Company.

For a number of years but little consistent development work was done. In 1906 the owners of many claims grouped their locations and Fred Alsdorf and F. J. Elliott took an option on them, and soon afterwards had the location examined by J. Park Channing, consulting engineer of the General Development Company, a Lewisohn corporation, who was negotiating for the Inspiration claims. As a result, the General Development Company took over the Alsdorf-Elliott option and, in 1906, started development work. Three per cent ore was found for a total vertical depth of 490 feet, and by November, 1907, there were about a million tons of ore in sight.

The Miami Copper Company was organized with a capital of \$3,000,000 which was later increased to \$4,000,000. The company's president is

Adolph Lewisohn. About one thousand men are employed.

ARIZONA COPPER

The mines of the Arizona Copper Company, Ltd., are situated in the Clifton-Morenci district with the mill at Morenci and smelter in the outskirts of Clifton.

Among the earliest copper properties to be worked in the State were some in this district, although it lay right in the heart of the Apache country, and every prospecting party entering it did so at infinite risk.

Henry Clifton, whose name is now borne by the mining town, was the first prospector to enter the district and notice the promise of its copper indications. At that time, however, the Apaches were so hostile that the discoveries were not followed up. In 1870, a party of 46 miners came over the mountains from Pinos Altos, New Mexico, found a little gold and two years later located the Arizona, Central, Yankie and Moctezuma. The same year the famous Longfellow, which developed into the first notably rich copper producer in the State, was located by Robert Metcalfe.

By 1873 mining was actively prosecuted in the district, and the Leszynskys were operating an adobe smelter in the district below the Longfellow, and, although of crudest construction and using charcoal for fuel, it managed to work something like a ton of ore a day.

To solve the problem of getting the ore from

the Longfellow to the smelter at Clifton, the first railroad in the Territory was built. The track was twenty-inch gauge, and was operated by mule power until, in 1880, a four-ton locomotive, the Little Emma, was hauled into the district by freight wagons, put together and set down upon the toy track. Its duty was to haul the empty ore cars to the mine. On the return trip when the ore cars were full, gravity supplied the necessary motor power.

At first the Apaches viewed the little train with something like awe, but later, with the contempt that familiarity is said to breed, tried to hold it up by a frontal attack as well as one from the flank. Dad Arbuckle, the engineer, pulled the throttle to the last notch, and the Little Emma gallantly leaped to battle. The engagement was brief and eminently satisfactory to Dad. After the Apaches that had been left intact had cleaned up the muss occasioned by those of their tribe that Little Emma had butted, they decided to eliminate frontal attacks from their book of strategy.

The Leszynskys sold out in 1883 to a Scotch corporation, The Arizona Copper Company, Ltd., for \$2,000,000. The new owners built a narrow gauge railroad from their mine at Clifton to Lordsburg on the Southern Pacific, and, in 1892, erected a leaching plant to handle certain types of the ore, which like all of the ore in the district averages only about three per cent copper.

In order to operate with a profit, most efficient methods are used both in handling and treating

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the ore. A daily output from the mine of 3,000 tons requires a working force of but 1,600 men. Reverberatory furnaces are used in the company's present smelter, which was erected in 1914, at a cost of several million.

DETROIT COPPER

The Detroit Copper Company's mines, sixth in order in dividend production, are also located at Morenci. The company was incorporated in 1875, and in 1882 constructed a small smelter six miles from Morenci, on the San Francisco River. Two years later the smelter was moved to the mines. By 1893 the discovery had been made of the immense amount of low-grade ore within Copper Mountain, and the Phelps-Dodge organization, after making careful examination, became satisfied with the financial possibilities of mining operations in the district and, in 1895, bought up a controlling interest of the Detroit Copper Company stock. Fifteen hundred tons of ore is the mine's daily output, and thirteen hundred is the number of men on the company's payroll.

THE SHANNON

The Shannon mines, of the Shannon Copper Company, at Metcalf, are in the Clifton-Morenci neighborhood, and although they produce but 150 tons of ore daily, with seventy-five men, rank tenth in the list of the State's great dividend producers.

The company was organized in 1900, with a capitalization of \$3,000,000. It has since produced

in the neighborhood of 140,000,000 pounds of copper, of a value of more than \$15,000,000, and has in sight as much more copper as has been taken out. Its property consists of about twenty claims located near the summit of Shannon Mountain, rising 1,200 feet about the bed of Chase Creek.

These claims were grouped around the original Shannon claim which was one of the earliest claims in the district.

At the Shannon mines is the Shannon incline, down which ore cars drop a distance of eight hundred feet in a horizontal distance of one thousand feet. Occasionally, a rash passenger goes down in the cars, when the sensation is much the same as if he took a tail dive in an aeroplane.

The company has a model smelter below Clifton to which it carries its ores over its own railroad line.

RAY CONSOLIDATED

While the Ray Consolidated is eleventh on the State's list of dividend producers, the daily output of ore from its mines is greater than any of its rivals, amounting to 9,000 tons a day.

The property is located on Mineral Creek in Pinal County, so named by Lieut. W. Emory who was with General Kearny's dragoons on their passage to California in 1846.

Although Emory's report gave enthusiastic predictions concerning the noticeable copper croppings at the mouth of the stream, no locations were made in the district until about 1874. Three

years later the Mineral Creek Mining district had been formed and was favorably known, not for copper however, but as the location of several promising silver claims.

In 1883, a thirty-ton furnace was treating ore from the Ray, Scorpion and Bilk mines. Soon after that the Ray Copper Company, which was organized in 1882, erected a small concentrating mill and remodeled its furnace.

The company, in 1898, sold its holdings to a syndicate of Englishmen whose principal was James Gordon. The Ray Copper Company, Ltd., was organized by them and a mill was built at what is now Kelvin, where Mineral Creek empties into the Gila, and a railroad was constructed from there to the mine.

It would seem that the investment did not prove a profitable one and the property passed into the hands of the Guggenheimer organization in 1908. Under the efficient administration of D. C. Jackling, the present vice-president and manager, the ore is now being handled in the most approved scientific manner, and the property is on a sound financial basis.

The Ray Mill was erected at Hayden in 1910, and in 1912 the company built, on adjoining ground, one of the greatest smelters in the State, equipped with reverberatory furnaces.

With its immense deposit of low grade ore, estimated the third largest in the United States, its future may be said to be more like that of a manufacturing problem than the usual mine. It is sim-

ply a question of manufacturing the ore now blocked out into copper. The company is working about 2,100 men.

INSPIRATION

Though not among the present "Big Eleven" dividend producers, The Inspiration Consolidated Copper Company mine is among the notable properties of the State. In the first place it has the privilege of paying taxes on the greatest assessed value (over \$74,000,000) of any of Arizona's mines; and secondly, what probably pleases its stockholders more, it is said that in capacity of mill and mine operation, it leads the State.

To put it on its present standing of efficiency \$15,000,000 was spent in development work and in creating the various plants required for its successful operation.

The ore varies in width in Inspiration ground from 200 to 1,600 feet, with an average vertical dimension approximating 150 feet.

The daily average amount of ore ground at the Marcey Mill is 475 tons, and the company employs about 625 men.

AJO MINES

It is interesting to note that the old Ajo mines, the first copper properties to be worked within the State, and for a generation practically lying idle, have been reborn by modern scientific methods, and now, held by a subsidiary company under the Calumet and Arizona, are considered among the big coming properties in the State. The presence of a large body of low grade copper ore has, for many years, been known to exist at Ajo, but it was thought that the grade was so low, less than two per cent, that it would not pay to work it.

However, under Maj. John C. Greenway, the manager of the Calumet and Arizona Mining Company, in 1915, a long series of experiments were carried on until a process had been satisfactorily developed, complete in every detail.

The process was finally decided upon January 10, 1916, the ground broken February 1, 1917, and a 5,000-ton plant for handling the ore completed May, 1917.

To the New Cornelia, the original purchase of the Calumet and Arizona, in August of 1917 was added the ground of the Ajo Consolidated Copper Company—1,150 acres.

With the ore now developed in the New Cornelia and these new lands there are about 65,000,-000 tons of ore in sight.

Announcement that the New Cornelia will erect a 5,000-ton flotation plant and a 2,000-ton smelter at Ajo is said to have been made by the C. & A. management.

While the principal metals found in Arizona are copper, silver, gold, lead and zinc, most of the other rarer metals also are found. The ores of molybdenum, namely molybdenite and wulfenite, are found in many places in Arizona. Molybdenite is found in Gila County in disseminated ores at Miami; in Greenlee County in the copper ores of

the Clifton-Morenci district; in Pinal County in ores at Ray and Kelvin as original mineral. It is also found in Pima and Santa Cruz counties. Wulfenite is nearly always present in silver ores at Tombstone; it is also found in Cochise, Gila and Pima, Pinal, Yavapai and Yuma counties. Molybdenite, used extensively in the manufacture of exceedingly hard steels, is peculiarly adapted for armor plate. When a regular supply can be guaranteed to steel manufacturers, there is no doubt of a steady market for Arizona's ample supply of molybdenite.

Vanadium is well scattered throughout the State, principally as the ore, vanadinite. It is found in Cochise County, near Fairbanks; in Gila County in the Globe district; in Pima County 14 miles northwest of Tucson, and in several places in Pinal and Yavapai counties. Tungsten is also found in many parts of Arizona, including Pima, Santa Cruz, Cochise, Maricopa, Mojave and Yavapai counties. Manganese is also found in many places in the State. Mercury is found in Maricopa, Yavapai and Gila counties.

Building materials of a varied character are found within the State, including cement rock, lime, gypsum, marble and slate.

Arizona promises future development in asbestos, mica, celestite and strongionite which are used for fireworks, barites, clays and other products.

According to the Directory of Operating Mines, compiled by Charles F. Willis, director of the Bu-

reau of Mines, University of Arizona, 1915-16, there were then being actively worked within the state, mines as follows: Copper, 65; gold, 25; gold and silver, 8; silver, 3; lead with gold and silver, 4; lead with silver, 2; lead with zinc, 5; zinc, 1; tungsten, 3; cinnabar, 1. In addition to this it must be remembered that most of the mines listed as copper also carry gold and silver, and that many new mines have been put in operation since the directory was compiled.

Zinc is now fifth or sixth on the list of metals produced in the State, but is quite likely to become second only to copper in importance owing to the exceedingly large deposits of zinc carbonates which have recently been discovered.

In general it may be said that Arizona miners receive in wages every year over \$50,000,000. The eleven big copper companies paid in dividends in 1916 (estimated) \$35,000,000.

The total production of gold, silver and copper in Arizona for 1916-1917 is as follows: 1916, gold, \$4,092,800; silver, 6,680,252 fine ounces; copper, 692,630,286 pounds. In 1917, gold, \$5,533,800; silver, 8,183,205 ounces; copper, 692,923,722 pounds.

In money the total valuation of all mineral production in Arizona in 1916 was about \$205,000,000, and in 1917, in spite of labor difficulties and the fixation of the price of some minerals, it rose to about \$225,000,000. The assessed valuation on Arizona mines, mills and smelters for 1918 aggregated over \$421,000,000.

In speaking of the probable prospects for the

year 1918, G. M. Butler, acting director of the Arizona State Bureau of Mines, says:

"It is rather early in the year to attempt to prophesy anything as to the production for 1918. So many unforeseen factors enter into the matter that at best it can be nothing but a rough guess. The Government's refusal to raise the price of copper has done much to discourage small producers, many of whom were working at a loss in hope that the Government would do something to alleviate their difficulties. Doubtless a considerable number of these will be forced to stop work. The low price of copper also prevents the larger mining companies from doing much needed development work, and that is bound to have an unfortunate effect upon their production, which will become more and more evident as time goes on. The market for tungsten, molybdenum, and other relatively rare metals used in ferro-alloys is in a very unstable condition at present, and offers little incentive to producers of these metals. Whether any change may be expected in the near future it is now impossible to say.

"On the other hand labor troubles considerably curtailed the possible production of Arizona mines last year, and, if this year can be passed through without a repetition of these difficulties, this factor may counterbalance the detrimental ones already cited. Taking everything into consideration, I believe that our production this year will be about equal to that of last year unless difficulties now unforeseen arise; and there seems little doubt that

Arizona will retain her place as the first mineral state in the Union."

COAL

Although no coal has ever been mined commercially in Arizona it has been known for a number of years that two fields exist within the boundaries of the state. The Deer Creek fields lie on the south side of the Gila River just east of Dudleyville and about eighty-five miles northeast of Tucson. The field extends ten or twelve miles in an east and west direction and has a known breadth of three to four miles.

In a report published by the State Bureau of Mines it is stated that "The beds are thin, varying in thickness from twenty-four to thirty inches within the workable limits of the seam. Tonnage based on thirty square miles and twenty-four inches with fifty per cent available is 30,050,000 tons. The coal is fairly well disposed for mining except in regions of local disturbance." Part of the deposit is hard, black coal, adaptable to transportation, commercial use and coke, the second quality is only valuable for gas manufacture.

The Black Mesa coal field is largely within the Hopi Indian Reservation, lying west of the Chinlee Valley and north of the Hopi village of Walpai. The deposit is of considerable tonnage and of quality equal to Gallup, New Mexico, coal. The best exposure of the bed at present is fourteen miles southeast of Tuba where coal is taken to

supply the Indian school. A seven-foot stratum of coal is here found ten feet below the surface.

Coal is also found near Pinedale in Navajo County.

THE DIAMOND HOAX

Perhaps the greatest mining hoax that ever was perpetrated in Arizona was the alleged discovery in 1872 of a diamond field in the northeastern part of the Territory. Two men by the names of Arnold and Slack were supposed to be the discoverers, and magnificent-looking rough diamonds and rough rubies, which it is said they had picked up in the Arizona field, were exhibited in San Francisco. A company with a capital of ten million dollars was organized in San Francisco and the list of stockholders included a number of large mining investors. The fraud was exposed by Clarence King, United States Geologist, who showed that the stones exhibited were from Africa and Brazil, and upon visiting the Arizona fields, saw at once that it was not diamond-bearing country.

A second fake diamond field was located near the mouth of the Gila.

ARIZONA'S LOST MINES

Ever since the Americans first came to Arizona there have been current stories of "Lost Mines." The earliest of these stories were usually of mines belonging to the Jesuit padres and were supposed to be worked by Indians whom the friars enslaved, the poor natives toiling long hours in the bowels of the earth, and when not working, fastened by chains to the walls of rocky caverns to keep them from running away. These mines, of course, were fabulously rich, chunks of gold as big as one's fist and masses of silver weighing thousands of pounds being as common as cobblestones in a river bottom, and all, according to these stories, were covered up at the time of the uprising of the Pima Indians in 1751 and their locations lost with the expulsion of the Jesuits by the Spanish rulers in 1767.

This is pure fiction as there is no evidence whatever to support the persistent tradition that the Jesuits owned mines in Arizona. As we have seen elsewhere, mining was carried on to a limited extent during the years they did missionary work in Arizona as we learn from extracts from Padre Kino's report, "Even in sight of these new missions some good mining camps of very rich silver ore are being established." However, the Jesuits were striving to save the souls of Indians, not to profit in a material way by their labor.

After the Jesuit stories of lost mines grew stale, more modern ones took their places in after supper talks of prospectors as they sat about their fires under the Arizona stars, with distant yelping of coyotes for orchestral accompaniment. One of the most interesting of these stories, and one that undoubtedly had a foundation of fact, was that concerning the "Lost Soldier Mine."

In 1869, Abner McKeever and his wife were killed by Apaches near the big bend in the Gila River and his daughter Belle was taken prisoner. As soon as word reached the nearest military post, several small parties of mounted soldiers were started on the trail. One of these detachments was composed of Sergeant Crossthwaite, Privates Joe Wormley and Eugene Flannigan, who journeyed across the hot, forbidding desert to the north of the river.

Becoming confused in their bearings, the three wandered among the cacti and creosote bushes until two of the horses fell exhausted. With death from thirst staring them in the face, the soldiers, taking some of the horse flesh with them, pushed ahead hoping soon to find water.

That same night, in following up an arroyo in some low, broken mountains they came upon a spring just in time to save their lives. After they had assuaged their burning thirst they fell into an exhausted sleep. When they awoke in the morning, so the story goes, they found nuggets of pure gold in the bottom of the spring, and all about were scattered lumps of gold-bearing quartz, besides two quartz veins on the canyon wall above the spring, which were so impregnated with gold the men dug grains of the yellow metal out with their knives.

They loaded fifty pounds of the quartz on their remaining horse and started back for the Gila River. En route, overcome by thirst and heat, Crossthwaite and the horse died and Flannigan, a little later, wholly spent, crawled under a stunted mesquite to die. Wormley, the hardiest of the

three, finally reached the river delirious and all but dead.

Later, a rescuing party reached Flannigan in time to save his life, then found the horse and brought in the quartz from which \$1800 in gold was obtained.

Wormley and Flannigan made many attempts to retrace their steps but without success. They never found the lost mine, and though for years afterwards prospectors scoured the country, the desert still holds its mystery.

The "Lost Dutchman Mine" derived its name from a German who, from time to time, used to visit Wickenburg to buy supplies. Always he had his burros laden with quartz so rich in gold that it drove the inhabitants of the town half mad with covetousness and wholly mad with exasperation when they were unable to get even the remotest hint from the taciturn prospector as to where his mine lay.

Many attempts were made to both follow and track him, but slipping away at night with the feet of his burros tied in gunny sacks, he always succeeded in eluding his pursuers. One time he failed to come back and the desert hid another story in its grim bosom.

In the '60s, an Indian brought to Arizona City a lump of gold as big as the palm of his hand and traded it for beads and booze, boasting largely that he knew where he could get plenty more when that was gone.

Bribes, coaxing nor threats could not induce

him to tell the location of his Golconda; he said that nobody must know but himself. When he disappeared one day, "The Lone Indian Mine" was added to the mysteries and legends of the desert sands.

Then there is the story that tells of one of the old, nomadic, War Department camels leading a man to a desert "tank" or declivity in a rock which collected water in the rainy season. Here, so the story ran, there was even more gold scattered about than at the Lost Soldier Mine.

Another story, located in Yavapai County, tells of a ledge known to the Yavapai Indians where they used to dig the yellow metal out of the rocks and make rifle bullets from it. This likely was inspired by Felix Aubrey's story of the Indian who shot a rabbit with a gold bullet.

CHAPTER XIX

LABOR

OST of the antagonism between capital and labor in Arizona, to express itself in terms of actual conflict, has occurred in the various big copper camps, as, with certain conspicuous exceptions, mining operators are about the only people in the State employing large bodies of men continually.

As, year by year, the copper mining activities grew in magnitude, the close relationship between employer and employee that obtained in the early days disappeared, and on one side there developed the absent owner, largely out of touch with the individual employee, and, on the other side the laborers who took to looking upon the company employing them, even though the wages paid were not unfair nor the hours unduly long, as a soulless body that was fattening itself unjustly by reason of their toil.

The great rock upon which the two sides split was the question of recognition of the labor unions. The operators said they would be glad to treat with employees as individuals, but not as a unit through the labor agent of an organization. The laborers maintained that only as a union were they able to resist exploitation by employers, and that the

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perators must treat with them as an organized body, or, in self-defense they would be compelled to resort to retaliatory measures.

Their points of view steadily grew more unreconcilable, and the feeling between the employers and the men became so bitter that, as Charles F. Willis, Director of Arizona's State Bureau of Mines, wrote, "It is no secret that it has been believed that an industrial war, a war of capital and labor, was coming."

In June, 1903, there were labor troubles in almost every large copper camp in the State. In the Clifton-Morenci district the trouble grew so serious that Acting Governor Stoddard ordered out the National Guard to preserve order. The soldiers were sent on under the command of Col. James H. McClintock and were reinforced by a small detachment of Arizona Rangers. A day or two after they reached the mines five troops of U. S. dismounted cavalry arrived from Forts Grant and Huachuca. The differences between company and strikers were temporarily patched up, but no real advance was made towards a permanent peace.

An even more grave labor situation developed in October, 1915, when, the miners insisting upon higher wages and union recognition, there were strikes in the camps at Clifton, Morenci and Metcalf. About five thousand miners and workmen, largely Mexicans, were involved, and disturbances of the peace grew so serious that the local police officers did not seem able to cope with the situation, and the National Guard was finally sent in.

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Fearing bodily violence, the managers of the Arizona, Detroit and Shannon mining companies left Clifton, and many non-union workers, who would have persisted at work, either were victims of serious personal injury or were run out of town to the desert to shift for themselves. A camp was organized at Duncan, about thirty miles to the southeast of Clifton, where the refugees were cared for by the mine owners. In December, protected by United States deputy marshals, the owners sent about five hundred men into Morenci to do necessary assessment work on unpatented claims.

With labor still uneasy, in 1916 again there was trouble at the various camps, and, in the spring of 1917, it is said that in Jerome less than a hundred members of the Industrial Workers of the World induced a strike in a camp of six thousand men. Afterwards the agitators were deported by a delegation of citizens and the camp resumed its normal activities. Strikes were also precipitated at Ajo, Humbolt, Clifton and Morenci.

In July, 1917, a strike that threatened to be the most serious of all was called at Globe and Miami, both by the I. W. W. and the Miners' Union. There was also a strike in the Warren District, the home of the Copper Queen and the Calument and Arizona, in which members of the I. W. W. were prominent and unruly figures. The feeling against the I. W. W. and their sympathizers grew so pronounced, not only on account of violence and threats against all they termed the "bourgeoisie" but also for seditious and disloyal utterances

against the Government of the United States alleged to have been made by them, that on July 12th the sheriff of the county, Harry Wheeler, with a large armed force of men, presumingly acting as his deputies, rounded up 1,186 of these men, put them aboard a train and carried them to Columbus, New Mexico. "The authorities at Columbus," to quote from the report of the President's Mediation Committee, "refused to permit those in charge of the deportation to leave the men there, and the train carried them back to the desert town of Hermanas, New Mexico, a nearby station. The deportees were wholly without adequate supply of food and water and shelter for two days. At Hermanas the deported men were abandoned by the guards who had brought them, and they were left to shift for themselves. The situation was brought to the attention of the War Department, and on July 14 the deportees were escorted by troops to Columbus, New Mexico, where they were maintained by the Government until the middle of September."

For sometime afterwards the deported men and other members of the I. W. W. and their sympathizers were refused admittance into the district by armed guards, and a citizens' "committee" continued to deport men they considered "undesirables."

In the various troubles of 1917 throughout the state, the operators were ready to accuse strike agitators, many of whom were foreign born, not only of being professional trouble makers, but of

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being positively disloyal to the Government, and attacks upon the nation made by soap-box orators among the strikers, and the action of the Globe Miners' Union in voting down a motion to raise the American flag over their union hall seemed to substantiate their accusations. On the other hand, the miners accused the owners and operators of being profiteers, and of being as overbearing in their dealings with their men as a Prussian officer might be, and they quoted from the report of the President's Mediation Commission: "Too often there is a glaring inconsistency between our democratic purposes in this war abroad and the autocratic conduct of some of those guiding industry at home. This inconsistency is emphasized by such episodes as the Bisbee deportation."

Certainly the President's committee did not feel that labor, as a class, was disloyal, for it states, "Labor, at heart, is as devoted to the purposes of the Government in the prosecution of this war as any other part of society. If labor's enthusiasm is less vocal, and its feelings here and there tepid, we will find the explanation in some of the conditions of the industrial environment in which labor is placed and which, in many instances, is its nearest contact with the activities of the war."

The opinion in which the I. W. W. is held by Arizona in general may be inferred from a resolution that was introduced at the first special session of the Third Legislature by Mrs. Pauline M. O'Neill, which said in part:

"That this Legislature, in special war session assembled, calls upon every official, from the highest to the lowest, to place Arizona in the lead in this nation in patriotism by denouncing the I. W. W.'s and all its works, and to pledge himself to do everything within his power to rid the state of an organization which is a menace to our Government and a stain upon the fair name of our state and our nation, and an insult to the beloved flag of our grand and glorious country." Thirtyone representatives voted for the resolution and none against it.

Soon after the deportation, Hon. John McBride. federal mediator from the Department of Labor, was sent to Arizona, where he was joined by Gov. George W. P. Hunt, who had been specially designated as mediator and conciliator. Later, as recommended by Governor Hunt, the President named a special mediation committee, which was headed by W. B. Wilson, Secretary of Labor, with Felix Frankfurter as secretary and counsel. This committee made a careful investigation of the Bisbee deportation and other labor troubles in the West. Among its recommendations were "the elimination to the utmost practical extent of all profiteering during the period of the war as a prerequisite of the best morale in industry. Modern, large-scale industry has effectually destroyed the personal relation between employer and employee—the knowledge and co-operation that come from personal contact. It is therefore no longer possible to conduct industry by dealing with emLABOR 293

ployees as individuals. Some form of collective relationship between management and men is indispensable. The recognition of this principle by the Government should form an accepted part of the labor policy of the nation.

"Law in business, as elsewhere, depends for its vitality upon steady enforcement. Instead of waiting for adjustment after grievances come to the surface, there is needed the establishment of continuous administrative machinery for the orderly disposition of industrial issues and the avoidance of an atmosphere of contention and the waste of disturbances."

As a result of the work of the mediation committee, "channels of communication between management and men were created through grievance committees, free from all possible company influences."

At the time of this writing, December, 1918, all of the copper camps are actively at work and, it is estimated, will produce during the year 819,000,000 pounds of copper, and while the labor question cannot in any sense be said to be settled, it is to be hoped that under the supervision the National Government is taking in the matter, not only will immediate difficulties be avoided, but the whole matter put on a more logical and just basis to both the employer and the employee.

On May 15, 1918, federal warrants for the arrest of twenty-five prominent citizens of the Warren District for alleged participation in the deportation were issued on indictments found in the United States District Court at Tucson. This list includes Walter Douglas, president of the Phelps-Dodge Corporation, whose home is New York, but who was in Bisbee on the day of the trouble, and Sheriff Wheeler, who after the deportation went as a captain with the American Expeditionary Force to France.

On December 2nd, however, Judge William Morrow, in the Federal Court at Tucson, sustained a demurrer of the defendants, ruling that the acts charged did not constitute an offence under federal law, thus relieving them of their indictments. In his decision Judge Morrow criticised the deported men for not submitting their character and conduct in the state courts to the community where they resided, suggesting that if any law was violated it was the state law against kidnapping.

A happening not unconnected with labor troubles in Arizona occurred in the Federal Court at Chicago, where, on August 30, 1918, ninety-five members of the I. W. W., who previously had been found guilty of anti-war conspiracies against the United States, were sentenced by Judge K. M. Landis to terms in prison ranging from one year and one day to twenty years, and with fines from \$5,000 to \$20,000. Five of these men were residents of Arizona, and others of those convicted were more or less prominently connected with Arizona labor troubles. It was Grover H. Perry, of Utah, one of the convicted ninety-five, who was quoted as saying to Governor Campbell, "The Government needs copper, and if we don't get what we

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want we'll see that the Government gets no copper. . . ."

In general it may be said that in no other state have the needs and claims of labor received more serious consideration than in Arizona. Wages are uniformly good and conditions under which men work, on the whole, excellent. In the agricultural districts of the Salt and Yuma valleys most of the cotton picking is done by Mexicans and Indians. The rest of the farm labor is usually performed by Mexicans or native Americans, the latter predominating.

CHAPTER XX

TILLING THE SOIL

THIS chapter is about the practice of agriculture in Arizona. As a boy we remember a book in which our Aunt Mary used to press flowers—a report of the Department of Agriculture for 1876. Aside from its interest as a flower press, the book, with its scientific names and dreary details, was the dullest affair we ever looked into. Keeping this in mind we shall endeavor to be temperate in statistics and abstemious in technicalities.

However dull as farming may be to read about, there was nothing humdrum in its practice in Arizona pioneer days. Take Pete Kitchen, who had a ranch in the Santa Cruz Valley near Nogales. The walls of his adobe house were higher than the roof, with convenient holes in the sides to shoot through. Day and night, sentries were posted here to watch for Apaches. Every man or boy on the place not only carried a gun continually about his duties, but knew how to use it. Every plow that went into the field had a rifle lashed to it; every wagon that went to Tucson with produce was accompanied by a mounted guard. In consequence, while the Apaches murdered most of his neighbors, Pete continued to do business at

the old stand, raising, for example, in 1872, twenty acres of potatoes and curing 14,000 pounds of bacon.

Jasper Pennington also farmed on the Santa Cruz in the early '70s. The Apaches stole his cattle, burned his corrals and devastated his fields, still Joe persisted in the quiet paths of agriculture for many years, planting his crops in the dark of the moon and harvesting them with a rabbit's foot in one pocket and a six-shooter in another, while his daughter Lucera stood guard with a Winchester.

In the late '60s two citizens of Prescott raised a crop of corn on the Verde. As the corn neared maturity the partners noticed that the roasting ears were disappearing between sunset and sunrise, and an examination of the soil between rows showed the prints of moccasined feet.

The partners sat up the next night—guns in hand. At midnight there were heard soft rustlings among the corn. With one accord the partners opened fire. The next morning they found a fat, Tonto squaw dead in the field. They promptly hung her up for a scarecrow and the depredations ceased. Be not shocked; those were rugged times. If the Apaches had caught the partners in theft they would probably have skinned them alive.

As early as 1865 settlers began to locate in many of the fertile spots about the Prescott Basin, including the Williamson, Verde, Walnut Grove, Kirkland, Peoples' and Skull valleys. Corn and barley were planted by farmers, who risked the

peril of hostile Indians in the hope of finding a profitable market for their crops at Camps Verde and Whipple. However, we read that though army quartermasters were paying twenty cents a pound for barley and corn from California, they would offer the local farmers but ten cents. Charges of crookedness on the part of army officials were freely made, but with no change in the situation. Nevertheless, even at ten cents a pound, one may raise corn at a profit, and plantings were slowly increased.

A mining camp is nearly always a good market. In 1876, in the vicinity of Globe, the Indians cut dried, native grass for hay, which they brought to market on their shoulders, selling it for a cent a pound. Cattle and sheep had also been brought into the country by this time, and butter and milk were obtainable at different mountain settlements, and beef and mutton were sold at reasonable prices.

In the Salt River Valley, agriculture had its beginnings in 1866, when John Y. T. Smith cut wild hay which grew along the banks of Salt River and established a hay camp four miles up from the site of the present city of Phoenix.

Before proceeding further we may say that, in general, the controlling factor of successful agriculture in Arizona is not so much the fertility of the soil as water supply. Only in the highlands of Arizona, where the altitude is well above a mile, is the rainfall sufficient to produce a crop without irrigation, and even in such places as about Pres-

cott, much better returns are secured when irrigation water can supplement the rainfall. Where suitable land can be found at an altitude as high as seven thousand feet, as in the case in the vicinity of Flagstaff, such crops as potatoes and some grains do very well with rainfall alone.

Work on the first irrigation ditch to be built by Americans in the Salt River Valley was begun, in 1867, by the versatile Jack Swilling, who came down from Wickenburg for that purpose, accompanied by "Lord" Darrel Duppa, Pump-handle John, One-eyed Davis, Lawsen and others.

The first location chosen for the intake was on the north bank of the Salt River, nearly opposite the present town of Tempe, but on account of adverse conditions encountered at that site, the work was abandoned in favor of a new location five miles further down stream, where J. Y. T. Smith had his hay camp.

Further irrigation canals to be built in the valley included the Maricopa Canal, built in '68, the Tempe and Wormser in '71, the Utah in '77, the Mesa and Grand in '78, and the Arizona in '85. Later the canals on the north side of Salt River were consolidated and improved under the management of the Arizona Improvement Company, whose controlling head was W. J. Murphy. On the south side of the river a syndicate headed by Dr. A. J. Chandler built the Consolidated Canal, which, by taking water from the river at a higher level and distributing it to the Mesa and other canals lower down, was able to make a decided

saving of water by decreasing evaporation and seepage. A considerable amount of water power was developed on both sides of the river at drops on the various canals.

THE ROOSEVELT RESERVOIR

In Arizona the volume of water in its rivers fluctuates greatly. When the spring rains melt the mountain snows, such rivers as the Salt and Gila become mighty torrents; during times of drought they are but small streams, and, on the Gila especially, at places disappear in the sand. For this reason the need of reservoirs on these and similar rivers throughout the West, which would impound water at time of flood and distribute it to the land as desired, became evident to officials and lawmakers at Washington as well as to the settlers.

In Phoenix, in 1889, a committee of water users, headed by William Christy, labored for months to develop something that would aid the situation. It was expected that Senator W. M. Stewart, of Nevada, heading a sub-committee on irrigation which was looking for favorable sites for reservoirs, might visit Arizona. In consequence, following a suggestion made by the Phoenix Chamber of Commerce, the Maricopa County Board of Supervisors delegated County Surveyor W. M. Breckenridge to look for sites on the Salt and Verde rivers. Accompanied by John R. Norton and James H. McClintock, Breckenridge inspected

a number of locations, by far the most desirable one being a site at the confluence of Tonto Creek and Salt River, just below which the river passed through a narrow gorge.

A promoter by the name of Wells Hendershott had made a location of this dam site and afterwards passed the title of it on to Man & Man, a firm of New York attorneys, and Sims Ely.

The Reclamation Service, appreciating that the Tonto site was the one perfect location for a reservoir on Salt River to supply the Salt River Valley with water, secured to the Government the Hendershott-Man-Ely claims for \$40,000.

Acting under authority of the Legislature, in 1900, Chief Justice Webster Street appointed a water storage commission, composed of J. T. Priest, W. D. Fulwiler, Dwight B. Heard, Charles Goldman and Jed Peterson, who also reported favorably on the Tonto site.

This was all very well so far as it went, but the excellence of the site availed but little without money to build a dam—and where was the money to come from?

What followed is like the story of Aladdin and the Wonderful Lamp. In making a cast of characters we are of the opinion that by reason of his persistent and untiring lamp-rubbing, B. A. Fowler, a Glendale rancher, a man of notable executive ability, whose tact in handling men seemed limitless and whose patience was all but inexhaustible, should certainly be given the part of Aladdin. As for the genii—Arthur P. Davis and F. H. Newell,

of the Reclamation Service; George H. Maxwell, executive chairman of the National Irrigation Congress; Joseph H. Kibbey, counsel of the Water Users' Association that was to be organized; Project Engineer L. C. Hill; William Christy, banker and farmer; W. D. Fulwiler, canal official and water expert; and neither last nor least, Theodore Roosevelt, who knew the West and its needs and urged the passage of a reclamation act in his first message to Congress—all have prominent parts in the working of this mighty miracle—they were the genii of the lamp!

In 1901, aided by George H. Maxwell, the irrigators of the Salt River Valley selected a committee to see what could be done towards securing the reservoir, making B. A. Fowler chairman.

A national appropriation of \$10,000 had been made by Congress to aid in preliminary work, to which sum was added \$30,000 more by an act of the state legislature, which empowered Maricopa County to make a tax levy for that amount.

The next step toward the desired goal was taken when a reclamation act that provided that the proceeds of sale of state lands in certain western commonwealths should be used in building reclamation works was signed, June 17, 1902, by President Roosevelt.

In order to make available the benefits of this act to their needs, it was necessary for the irrigators of the Salt River Valley to form themselves into an association which could act as a unit with the reclamation officials. After much hard work

on the part of Chairman B. A. Fowler and his associates, the people of the Salt River Valley, dissolving many conflicting interests, formed such a body, which was called the Salt River Valley Waters Users' Association, with B. A. Fowler as president, and Judge Jos. H. Kibbey, counsel.

One reason why the Salt River Valley was among the first localities to receive benefits from the reclamation act was that it not only had an irrigation system already worked out, but also its people could give a definite report on exactly what the proposed reservoir would accomplish.

Credit for this must be given Arthur P. Davis, who, when hydrographer for the Geologic Survey, at the instance of the local board of the Water Storage Commission, made an exhaustive investigation of the rainfall on the upper Salt and Tonto, as well as the capacity of the reservoir. Also, what was equally important, by the use of diamond drills, he had ascertained that bed rock extended across the river at a favorable spot upon which to build the dam.

The first tangible results of the labors of our genii appeared when, on March 12, 1903, Secretary of the Interior E. A. Hitchcock tentatively authorized the construction of a storage dam to be built on the Tonto site, and, on October 15th, reaffirmed the order and authorized the expenditure of \$100,000, the first installment of a fund which was expected to reach \$3,000,000. This money was to be returned to the Government by the farmers in installments covering a number of years, and without interest.

In addition to the building of the storage dam, the Reclamation Service undertook not only to purchase all of the existing canals in the Salt River Valley which desired to avail themselves of this stored water, but also to greatly improve them, build a permanent, concrete diversion dam to turn the water from the river into the canals and to develop water power.

The work was carried out even better than first planned. Under the supervision of Louis C. Hill, one of the great civil engineers of America, a system of water storage and distribution, and the development of water power, was carried to completion that has no superior in the world.

As completed, the project has cost over eleven millions of dollars, and while there has been much local criticism over the unexpected high price of the work, nothing but praise can be given the completed system. In former years, in the valley, floods would wash out diversion dams when the river was high, and even with dams intact, canals would carry but a meager supply when the river was low. Now there is a stable and ample supply, and lands in certain parts of the project that could then not be sold for \$30 an acre are worth today from \$150 to \$350 an acre.

Labor and brains and money, without stint, went into the Roosevelt Dam, but the benefits accruing from it are far reaching. The Salt River Valley is one of the garden spots of the world. It is a land of milk and honey, it is a land of fruits and vines. Its fields are emerald with way-

ing alfalfa as far as the eye can reach; its fields are golden with grain, they are silvered with cotton. Fruits of the Occident, such as peaches, plums and apricots, grow side by side with dates, figs and pomegranates of the Orient, while in protected spots near the foothills the apples of the Hesperides—oranges, pomeloes and lemons—are grown in rare perfection. The fame of its lettuce and melons is nation wide.

The first stone in the dam was laid September 20, 1906, the last, February 5, 1911. The height of the dam from lowest foundation stone is 284 feet, and the structure is 168 feet thick at the base. The spillways are in natural rock. The area of the lake formed by the dam when full is $25\frac{1}{2}$ square miles, when it holds 1,367,305 acre feet of water, which is, of course, water enough to cover 1,367,305 acres one foot deep. It is the largest artificial body of water in the world.

In building the irrigation system, every possible opportunity for developing water power by falls was utilized, and this power converted into electricity by means of plants of the most efficient type. At the dam itself, 10,000 horse power is developed, and at other places on the various canals, 15,000 horse power more.

The area of land to be irrigated by the system, when entirely perfected, is now estimated at 219,000 acres.

On March 18, 1911, this mighty irrigation system was dedicated by Colonel Roosevelt, who had not only taken great interest in reclamation

projects in general in the West, but in particular the irrigation system in the Salt River Valley, whose dam and reservoir now bear his name.

John P. Orme, president of the Water Users' Association, acted as ex-officio reception committee on the day of the dedication; Gov. R. C. Sloan was chairman. In addition to the address of Colonel Roosevelt, speeches were made by Chief Engineer Hill, B. A. Fowler and others.

At the conclusion of his speech, Colonel Roosevelt moved the electric switch which opened the sluice gates at the northern end of the dam, and a great stream of impounded water went thundering into the river bed, where about fifty-five miles below it would be picked up again by the Granite Reef Diversion Dam and turned into the irrigating canals.

In order to transport supplies to the dam, a road was built from Globe past the reservoir to the Salt River Valley. Much of the country is very mountainous, with crags, gorges and precipices on every hand. The road going through the heart of all this is one of the scenic highways of America and has gained a national reputation under the name of "The Apache Trail." For all the roughness of the country, the road was so carefully laid out and so skillfully built that travel over it is not only exhilarating but safe and pleasant. It is used by several automobile stage lines, one operated by the Southern Pacific Railroad.

VERDE RESERVOIR SITES

On the lower Verde River, a tributary of the Salt, favorable reports have been made by Government engineers on two additional reservoir sites, the "McDowell" and the Horseshoe. The former would impound 280,000 acre feet of water, and the latter 205,000 acre feet, or sufficient to supply over 50,000 acres of land.

THE LAGUNA PROJECT

Climatic conditions along the lower Gila and the lower Colorado do not vary greatly from those in the Salt River Valley, and the "desert" soils adjoining them need only the application of water to make them fruitful.

Above Yuma the United States Reclamation Service, in July, 1905, began work on a dam which would divert water from the Colorado River into an irrigating canal, where it would water about 130,000 acres of land. This dam, which crossed the river with a total length of 4,780 feet, is 244 feet wide and 19 feet high. It is built of loose rock confined by three, heavy concrete walls, with an 18-inch floor of concrete on top, and has a concrete apron extending down stream. While not intended as a storage dam, it raises the water about 10 feet.

The intake of the canal is on the California side of the river, fourteen miles north of Yuma. The canal carries the water south to a point opposite the city, where it drops it through a syphon under the Colorado River, coming out on the side of a hill to flow southward again, this time crossing the International line into Mexico.

The lands irrigated by the system include: In California, 17,000 acres on Indian reservation; on the Arizona side, 20,000 acres in the Gila bottom, 53,000 acres in the Yuma Valley, and 40,000 acres on the Yuma mesa.

Water was first delivered on the Arizona side, through the syphon, June 28, 1912.

IRRIGATION RESOURCES OF ARIZONA

The natural flow of water in the Gila River is even more fluctuating than in the Salt, and although the Reclamation Service has not vet undertaken to construct a storage system for that stream, several sites have been favorably passed upon by Government engineers, the most favorable one being located a few miles below San Carlos. A complication in building a dam here has arisen owing to the fact that the Arizona Eastern Railroad Company has a right-of-way through the canvon where the reservoir would be located. However, it has been estimated that a proper dam and diversion weir can be built for \$6,311,000, which also includes payment to the railroad company for their right of way. The increase in value of the lands watered by it alone would more than pay for it, as it is estimated impounding the average flow of the Gila would water ninety thousand acres of land. Part of this water would be used by the Pima Indians on their reservation. Special bills have been introduced in Congress authorizing the construction of the San Carlos Dam on a plan of repayment of cost by the irrigators similar to the custom of the Reclamation Service in other projects.

At present Indians on the Pima Reservation are using for irrigation water pumped from wells with power transmitted from the Roosevelt system. These wells were designed by W. H. Code, former chief of the superintendents of irrigation for the Indians, and an engineer of international reputation, and while they have proven of great benefit to the Pimas, the ten thousand acres irrigated by them are inadequate for their steadily increasing needs.

A small storage reservoir has been made by a recently completed dam on Granite Creek near Prescott and provides water for irrigation in the Little Chino Valley.

On the night of April 14, 1915, the Lyman storage dam on the Little Colorado River, above St. Johns, in Apache County, went out in a flood, taking two lives and causing a money loss of over \$200,000.

Later the state Legislature arranged to loan the farmers of the district \$120,000 to replace the dam. The foundation of the clay cone is now—June, 1918—entirely done and the concrete wings in place. It is expected that the entire structure will be finished January 1, 1919.

On the upper Gila, irrigation has been practiced for a number of years, the settlers using the normal flow of the river. Along the Arizona-New Mexico line, five small canals irrigate lands in both states, and five more are used wholly on the Arizona side of the line. In the Soloman Valley, as far down the river as San Carlos, twenty-four canals irrigate 23,728 acres. Between San Carlos and Florence there are four canals.

Alfalfa is the principal crop on the upper Gila, and in addition to oats, wheat and barley, deciduous fruits are raised, pears, peaches and apples doing especially well. The farms are small, and the people, largely of the Mormon faith, incline towards intensive methods of farming.

The San Pedro and Santa Cruz valleys resemble the upper Gila agriculturally. St. David, on the San Pedro, watered both by stream flow and by wells, is a place of gardens, the produce of which finds ready market in Bisbee and vicinity. Summer waters are utilized on both the Santa Cruz and the San Pedro for quick growing crops of corn. Winter rains afford water for crops of wheat and barley. About forty-five small canals take water from the San Pedro, and probably sixty draw upon the Santa Cruz and its tributaries. Ground waters underlie both these valleys and are being developed in considerable quantity by artesian wells on the San Pedro and by pumping plants on the Santa Cruz.

The narrow strips of excellent land bordering the upper Verde River and its tributaries, Clear, Beaver, Oak and Dragoon creeks, aggregating about 8,000 acres, are irrigated by the use of 79 small canals. The altitude here is from 3,500 to 5,500 feet, and on the little farms splendid deciduous fruits are raised in addition to the usual alfalfa and grain.

Irrigation is used to supplement rainfall on the Little Colorado, which varies from eight to twenty inches per annum. Farming is combined largely with the ranging of sheep and cattle. The altitude is from five to seven thousand feet.

CROPS

Acreage in crops in Arizona, in 1917, as compiled by the State Council of Defense and verified by L. M. Harrison, government field agent, are as follows:

Maricopa County	.270,000 acres
Cochise	. 46,000
Graham	. 42,000
Yuma	. 36,000
Pinal	. 28,000
Pima	. 26,000
Coconino	. 14,000
Yavapai	. 14,000
Navajo	. 14,000
Santa Cruz	. 11,000
Apache	. 11,000
Gila	
Greenlee	
Mojave	1,350
Total	.523.350 acres

The principal crops were:

Alfalfa13	3,000 acres
Cotton 5	2,000
Wheat 3	3,000
Corn 3	2.000
Other maizes 6	0.000
Beans and peas 1	9.500
Potatoes	4.400
Garden truck	8.000
	5 .25 9
	4,800
	2,691
Olives	601

According to conservative Government reports in Arizona, there is irrigation water, known and estimated, which may be developed by building storage dams at approved sites and by pumping from an underground supply, for a million and a quarter acres of land. In addition to this, the area where crops are raised by rainfall and rainfall supplemented by irrigation is steadily increasing.

COTTON GROWING IN ARIZONA

The success attained by cotton growers, both as to the excellence of the product and the profit derived from its cultivation, has been so marked that the industry deserves very special mention.

As has already been recorded, cotton was grown by the ancient cliff dwellers around Navajo Mountain, and by their presumed descendants, the Hopis, since the morning twilight of history, and when the Jesuits and Franciscans journeyed along the Gila River they marveled at the excellence of the cotton raised and spun by the Pima Indians.

Perhaps the first cotton raised by the whites in Arizona was a five-acre patch, grown in 1873 by John Osborn, near Phoenix. The lint was combed by hand and used principally for making bed comforts. After taking what cotton he could use for his family's needs, Mr. Osborn gave the rest of it away to his friends, who used it, unginned, for filling mattresses.

In 1884 Felix G. Hardwick raised five acres of cotton on the Larsen ranch south of Tempe, from which he picked 3,390 pounds, unginned, and received a reward of \$500 offered by the territorial Legislature.

In spite of the success of these experimental patches, the cultivation of the crop was not continued. The price of short-staple cotton was low and offered no attraction to the Arizona raiser of alfalfa and grains. In 1899 an official of the Department of Forestry stated to Dr. A. J. Chandler, a canal builder and extensive rancher in the Salt River Valley, that he believed that high priced Egyptian cotton could successfully be grown in the Salt River Valley. As a result Doctor Chandler planted a five-acre patch on his ranch north of Mesa. The yield and quality were so satisfactory that Doctor Chandler induced Prof. A. J. Mc-Clatchie, an agricultural scientist, to put in a piece on the Experimental Farm on Grand Avenue near Phoenix. The lint harvested from this patch was tested in the Lowell Textile School, where it proved

14 per cent stronger than the same variety from Egypt.

In 1902 cotton growing was taken up at Yuma by local representatives of the Bureau of Plant Industry, and after a few years of careful work in seed selection and cultivation, the variety now known as the "Yuma" was produced. In 1907 experiments in cotton growing were begun at the Government Experiment Station at Sacaton on the Pima Indian Reservation, where the work came under the immediate supervision of E. W. Hudson. Here what is now known as the "Pima" variety was evolved, which is considered the best strain of Egyptian cotton grown.

Its first production on a large scale was undertaken in fields south of Tempe, when, in 1916, 275 acres were scientifically planted and cared for. According to George Butterworth, official classifier, there is 5.73 per cent less waste in Pima than in fancy Sea Island. The average length of the Pima staple is 111/16 inches—the longest in the world.

The largest grower of cotton in Arizona is the Southwest Cotton Company, a subsidiary company of the Goodyear Tire and Rubber Company. The Goodyear people came to the state through the efforts of Dr. A. J. Chandler and T. W. McDevitt, and after being convinced that Pima cotton grown in Arizona was the best in the world for the manufacture of tires, they leased from Doctor Chandler for five years, with option to buy, eight thousand acres of desert land lying south of Chandler in the Salt River Valley. Under the contract Doctor

Chandler was to construct an irrigation system, furnishing pumped water; the Goodyear people were to prepare the land. In December the tract was a primeval desert covered with creosote bush, sagebrush and cacti. An army of men, equipped with teams, tractors and implements, under skillful management, were put to work. Those employed by Doctor Chandler sank wells, installed pumping plants and built concrete ditches; those working for the cotton company cleared, leveled and bordered the land for irrigation and sowed the seed. By May the cotton was up and growing on three thousand acres, and five thousand acres of land more were being worked upon.

The change in the aspect of the country was little less than miraculous. This, however, is but a single unit of the cotton company's undertaking. Their plantings in 1918 were: Chandler Ranch, 7,000; Anderson unit, 4,000; Agua Fria Ranch, 4,000. The company has built two towns, Goodyear on the Chandler Ranch, and Litchfield on the Agua Fria. At present, April, 1918, the Southwest Cotton Company employs 2,500 men, and, in addition to numerous tractors and caterpillars, uses 1,000 mules. Electrical power for pumping irrigation water is obtained from the Roosevelt irrigation project. Seventy-five thousand acres. altogether, of cotton were planted in the Salt River Valley in 1918, and 17,000 acres in the Laguna country at Yuma.

Arizona cotton has proven its superiority in several distinct lines. It makes the toughest and

best automobile tire fabric known, and the smoothest and strongest thread. It also combines readily with silk and is even better than Sea Island for mercerizing. Possibly one of the important uses from now on for Pima cotton will be the manufacture of airplane wings, where length and strength of fibre are first requisites. The adaptability to that purpose of Pima cotton was brought to the attention of Howard Coffin, chairman of the aircraft board, by Dwight B. Heard, chairman of the Arizona Council of Defense, and as a result the Government bought two hundred bales of Pima cotton at Tempe, paying seventy-three cents a pound for it, and converted the staple into airplane fabrics at a New England factory.

If the name of the man who makes two blades of grass grow where but one grew before should be called blessed, what shall be said of some of our Arizona pioneers who have converted cacticovered desert, where crawled the horned toad and roamed the coyote, into green alfalfa fields, where cattle stand knee-deep in lush verdure?

If food will win the world war, that Moloch-like devours our sons and daughters, what honors are too great for men who, while the unspeakable Hun devastates and renders sterile the farms of France, make fruitful fields where only cat-claw and sagebrush grew before? In Arizona there is W. J. Murphy, who, besides turning literally thousands of acres of desert into alfalfa fields and orchards, planted thirty-two miles of shade trees, many of them on other people's property, just to see the

grateful shadows in a sun-kissed land, where the aforesaid kisses, along in August, are just a bit too ardent. Then, too, there is the instance of Dr. A. J. Chandler, who discovered, what no one had suspected, that an underground lake of water lav under the desert south of Mesa, and, after developing water power by changing the course of an irrigating canal, pumped the underground water to the surface and made a fourteen thousand acre alfalfa field, which he cut into small fields and sold on long time to settlers. Did these men make money out of what they did? We hope so. They were not posing as philanthropists. What was better, they actually created possibilities for raising foodstuffs for countless years to come where only a wilderness had been before them.

Equally worthy of praise with the work of such captains of industry is what is done by the small homesteader, who takes water from some stream like the East Verde or the Santa Cruz and, with his own labor, waters his little orchard and patch of corn.

Perhaps the greatest praise of all, in this matter of beneficial use of water, should go to an old squaw who lives near Quitovaquito. All the water that she had for herself and her household she carried from a well and poured into an earthen olla that stands in the shade of her rude jacal. Under the olla she planted a few onions which grew to maturity, watered by the drops that oozed through the bottom of her jar and fell to the ground.

STOCK RAISING

In its primitive condition about half of Arizona's area, or nearly forty million acres, was available for grazing land. As is noted in the chapter on the flora of Arizona, the state is rich with many varieties of native grasses. On the deserts, winter rain brings up a verdure which lasts sometimes through February, March and into April. In the foothills, where more rain falls, herbage of one sort and another will last for a month longer, and again be quickened into life by summer rains of July and August. In the plateau country and in the mountains, forage plants are watered by melting snows in the winter and, according to the wetness or the dryness of the season, produce herbage throughout the summer.

Attracted by these favorable natural conditions, the Spaniards, as early as 1780, commenced bringing in herds into what is now the southeastern part of Arizona; and, during the periods of peace with the Apaches, from 1790 to 1815, many flourishing haciendas were established from Tucson, both southeast and southwest, past the present International line. Here some sheep and great herds of cattle were raised, and it was the survivors of these latter herds that the Mormon battalion encountered on the San Pedro in 1846.

Many of the Indian tribes of the state raised both cattle and sheep on a small scale after the Spaniards came. The Navajos, the chief of these native herdsmen, first derived their flocks by theft from the Spaniards on the Rio Grande, and were fairly well embarked on a pastoral vocation in the early part of the nineteenth century.

Americans began bringing cattle into southern Arizona within a few years after the Gadsden Purchase. In 1857 Bill Kirkland brought a band of cattle to the Canoa Ranch, forty miles south of Tucson. A pioneer by the name of Harrup tells that he was one of the cowboys, in '64, to drive a band of cattle across the desert from San Bernardino to Hardeyville, where it was bought by a man of the name of Stevens and taken on into Williamson Valley. About this same time, W. S. Oury of Tucson imported forty milch cows which he pastured near Tucson. All of the stock in those days had to be guarded day and night on account of the Apaches.

With the coming of the soldiers, in the latter part of the Civil War, cattle were driven in by beef contractors, and attempts were made at cattle raising in the Territory to supply the various posts. One of the leading stockmen in the Territory in the late '60s was H. C. Hooker, owner of the famous Sierra stock range located near Fort Grant, and interested in live-stock enterprises in various parts of the Territory. In 1868 he tried the experiment of turning cattle out on the rich grass in Williamson Valley west of Prescott, but the Apaches raided them so continuously that the project was given up. In 1869 Hooker had four thousand head of cattle near Camp Crittenden, but after several raids by the Apaches he took them into the Papago country

in the Arivaca Valley not far from the Mexican line. Just to show their friendly attitude toward Hooker, the Papagos stole all the cattle they cared to eat but undoubtedly served as something of a buffer against Apaches.

By 1880, when, except in the southeastern part of Arizona, the Apaches were pretty well under control, according to census statistics there were in the Territory 145,000 cattle, 326,000 sheep and 9,700 hogs.

Today many of the leading sheepmen, during the summer months, pasture their herds on the high plateaus in the north-central part of the state and, in the fall, bring them down by easy stages. through the foothills to the desert, where, in the early spring they are sheared, and soon thereafter begin their slow pilgrimage back to the moun-They are driven along routes designated tains. by the Government, and the forest rangers see to it that they keep the proper paths. Indeed, as much of the open range is now in the forest reserve, the forestry officials largely have supervision over the grazing of stock in the state, setting certain sections aside for sheep and certain others for cattle, thus relegating sheep and cattle wars to the gun days of the pioneers. Herds of angora goats are frequently encountered in such places as the uplands about Prescott, where they will eat apparently anything from cactus to oak browse.

In the beef industry the ranges are largely used as a breeding ground, the cattle being brought into irrigated countries and fattened for the markets on alfalfa. Although the ranges, with the steadily increasing numbers of small farmers, yearly become more restricted, yet in foothill and mountain, where water is accessible, cattle ranches commanding wide ranges may still be found and the thrifty headquarter houses, corrals and barns give every evidence of prosperity. Fences enclosing these areas are more common than in former days, but there are still places where herds more or less intermingle and rodeas take place in the spring and fall as of old.

The number and value of live stock in the state, according to the assessment list for 1917, is as follows:

	Number	Value
Cattle	.900,180	\$26,904,962.00
Milch cows		2,151,547.00
Sheep	.808,220	4,851,980.00
Goats		427,774.00
Swine	. 22,484	132,917.00
Buffalo	. 30	750.00

OSTRICHES

A rather unusual experiment that has been tried out by the Arizona farmers is the raising of ostriches for feathers. The industry saw its beginning in the state when, in 1888, two Arizona farmers, Josiah Harbert and M. E. Clanton, purchased a breeding pair and twelve chicks from a California exhibition park. In transporting the birds from the station at Phoenix to the Harbert ranch, all of the chicks but one were smothered, and to complete the owners' misfortunes, the following

year the mother bird died from the effects of eating too much barbed wire.

This left the old male and one chick, who doubtless, being stirred to pity by the straits to which the owners were reduced, at the end of the third year laid an egg. The habit once formed was persisted in, and, seven years later, in 1898, this admirable mother had ninety-seven children and grandchildren. These birds found in the Salt River Valley a most congenial climate, and in alfalfa a perfect ration.

The Harbert birds were a South African strain. Later a few big Nubians were imported into the valley, and the progeny of these different birds multiplied until by 1913 there totalled over six thousand, the largest number to be found any place in the world outside of Africa.

However, though the birds did exceedingly well and produced good feathers, the market price of plumes steadily declined until, deciding that the industry was an unprofitable one, the largest ostrich farm in Arizona disposed of its entire lot of birds at any price it could get, taking as low as five dollars for ostriches that had been held at from two to three hundred dollars.

According to the assessment roll there are now (1918) 950 birds in the state, which on the lists are valued at \$8.10 apiece.

BISONS

The thirty buffalo, or bison, in the state belong to a cattle company, and are located north of the Grand Canyon. The owners are crossing them with cattle, trying to produce a new beef strain.

CHAPTER XXI

CHURCHES AND SCHOOLS

THE MORMONS

Pollowing the Catholics, the Mormons were the second large religious denomination to be actively engaged in church work in Arizona.

Among the earliest Mormons to penetrate the country, afterwards known as Arizona, was a party of missionaries who, it is reported, visited the Hopi villages in 1846. Later, in December of the same year, the Mormon battalion, as we have noted, passed through the southern part of the state, which journey gave its members excellent opportunities to observe the country's agricultural possibilities, and the Mormon colonists who afterwards settled in this section were doubtless influenced in their action by the report of these soldiers.

The first attempt at settlement by the Mormons here seems to have been made at Tubac in 1852, but the location was soon abandoned on account of the inadequacy of the water supply for irrigation. Another early Mormon colony was the one established in 1863 or '64 on the Colorado River, in Pah-Ute County, which, in honor of its leader,

Anson Call, was named Callville. With their usual industry, these settlers built comfortable, if primitive buildings, constructed irrigating canals and practiced farming. However, when that part of the county was annexed to Nevada, that state levied taxes against the land for the years it had been a part of Arizona, although the colonists had already paid taxes. This proved so great a burden that the settlers abandoned their farms, some of them going to southern Arizona and others to Utah.

In 1865 a second colony left Utah under the leadership of Thomas S. Smith, and settled in the same region, at St. Thomas, on the lower Muddy River. By 1871 they had three thousand cultivated acres, but, as in the case of Callville, rather than fight the matter of double taxation in the courts, the colony, which numbered five hundred families, left their farms and returned to Utah.

Also, in the '60s, a settlement was made in Walnut Grove, in Yavapai County, where five hundred acres were put in cultivation. Another settlement was made at Postle's Ranch on a branch of the Verde, twenty miles north of Prescott.

Jacob Hamblin, a personal friend of Brigham Young, in 1858 led a party of twelve on a missionary journey to the Hopis. The party included, beside an Indian and Spanish interpreter, a man who could speak Welsh, for there was a persistent, amazing theory, in the early Arizona days, that the Hopis were of Welsh descent. Indeed, no less a person than Delegate Poston, in a speech in Con-

gress, refers to the Moquis as a people "supposed to be descendants of the Welsh prince Madoc, who sailed from Wales for the New World in the eleventh century."

However, in spite of the Welsh interpreter, the Hopis declined to embrace Mormonism, just as they had turned a cold shoulder to Padre Garces' religion in 1776.

In 1873 Hamblin laid out the wagon road which is now used from Lee's Ferry southward. In 1877 a Mormon settlement was established at Moencopie Springs and called Tuba City. Two years later John W. Young built a woolen mill at the spring, expecting that the Navajos and Moquis would bring in large quantities of wool. The conservative Indians, though, seemed suspicious of the new machinery and continued to work up their wool themselves. Later, as the country all about the Tuba colony was included in the Navajo Reservation, the Government bought out the mill and the land surrounding it. All that is left now to show for the venture is the ruin of the old stone building.

In January, 1876, President Brigham Young called a number of families from Utah and Idaho to go into Arizona and settle and do missionary work among the Indians. In response, four companies composed of fifty men each, besides women and children, left Salt Lake City February 3, 1876, arriving at Sunset Crossing on the Little Colorado in March. Here the immigrants divided, founding the settlements of Sunset, Obed, Brigham City and Allen (afterwards St. Joseph). A feature of special

interest in connection with these colonies is that the experiment of holding all property in common was followed by them for several years, but while it was considered that the plan had many good features, it was finally abandoned, the property being redivided according to the amounts first contributed.

None of these settlements proved to be permanent except St. Joseph, the settlers locating elsewhere in Arizona.

The Mormon town of Snowflake, located in the southwestern part of Navajo County, was established in 1878. The name might seem to indicate a meteorological origin, but not so. The founders were Erasmus Snow and W. J. Flake—Snowflake! It was inevitable.

Twenty-two miles to the south of Snowflake lies the town of Show Low, and the way it received its name is even more unique than the story concerning the northern town. Captain Cooley and Marion Clark were at one times partners, controlling the ranch where the town was afterwards established. Once when the two partners were playing a game of "seven-up" and had staked about all their respective possessions on their hands, suddenly Clark exclaimed, "Show 'low' and you take the ranch." Cooley promptly showed "low" and the town-to-be was christened. Afterwards the ranch was sold for \$13,000.

During the '70s a number of parties from Utah visited Arizona, either on missionary tours or looking for favorable sites for colonization. One of

these expeditions was led by Elder Daniel W. Jones, a man of ability and good judgment. This party reached Phoenix late in 1875, and after a stop of one day went on to Hayden's Mill—afterwards known as Tempe—where Chas. T. Hayden, the leading citizen, gave them a hearty welcome. They soon moved on, via the Pima villages and Fort Bowie, into Mexico. Evidently they did not find conditions favorable at that time for colonization in the lower republic, for about a year later the expedition returned to Utah.

The memory Jones carried of the Salt River Valley seems to have been a favorable one, for in March, 1877, Jones, again at the head of a colony, for a second time arrived at Tempe. On this occasion he had come to stay, settling his people a few miles up Salt River from Tempe at a place they called Jonesville, now the village of Lehi.

Securing help from the Pima Indians they dug a small irrigating canal, planted crops and prospered.

In 1878 a party of seventy-nine Mormons, under the leadership of F. M. Pomeroy and G. W. Sirrine, disliking the cold winters of their home in Paris, Idaho, journeyed as far south as the Verde River country in central Arizona. From there they sent a scouting party southward, which visited Jonesville. The attention of the visitors was called to an old, prehistoric canal which led from Salt River to the mesa above Jonesville, which they assumed had been built 350 A. D. by the "Nephites" of the Book of Mormon. It was obvious that by follow-

ing this ancient canal, a waterway by which the mesa lands could be irrigated could be constructed with comparatively little labor.

Upon hearing the report of their scouts, the colonists at once came to the new location, founded a town which they called Mesa City, and immediately started work upon the canal. Even greater success was achieved by this colony than the one at Jonesville, and, the center of a rich agricultural region, Mesa is now the second city in importance in the Salt River Valley.

The upper Gila Valley, in Graham County, was also settled by the Mormons, the first colony arriving under J. K. Rogers in 1879. It is now (1918) the largest Mormon district in the state.

Ecclesiastically, the Church of the Latter Day Saints in Arizona is divided into four "Stakes." The president of St. Joseph's Stake, with headquarters at Thatcher, in the upper Gila country, is Andrew Kimball. This stake has ten meeting houses with 5,493 members. The Maricopa Stake has headquarters at Mesa, with James W. Lesueur as president with over 3,500 members, divided into sixteen wards. St. John's Stake, with headquarters at St. Johns in Apache County, has 1,500 members in eight wards, with David K. Udall as president. The membership of the Snowflake Stake is about the same as that at St. Johns. The president is Samuel H. Smith.

At Thatcher, Snowflake and St. Johns there are excellent academies conducted under the auspices of the Mormon church, the Thatcher school being the most important, with 226 students and eight teachers.

Practically all difficulties between Mormons are settled within the church. Ward teachers visit all families within their district. If troubles arise that the teacher cannot adjust, the contending parties are brought before the bishop for trial. The decision of the bishop can be appealed to the stake presidency and the high council of twelve, and this decision, if necessary, can be carried up to the first presidency and the twelve apostles. No charge is made by any church official for services rendered to the church. The extreme punishment meted out to an offender is excommunication.

The Mormons state with pride that out of a state membership of about fifteen thousand there is not one of their denomination in an Arizona poorfarm, charity hospital or penitentiary. They not only do not believe in drinking alcoholic liquors, but as well discourage the use of tobacco, coffee and tea. They try to provide entertainment for their young people within the church. For example, they give dances in their meeting-houses, opening and closing them with prayer.

In view of their belief that the Government prosecuted their leaders with undue severity in the old polygamous days, the loyalty of the Mormons today to the Government is noteworthy. In these times of war they have been conspicuously zealous in all avenues of patriotic work, whether it is in buying liberty bonds, co-operating in a Red Cross drive or in giving their sons and daughters to the army and navy.

In connection with the prosecution by the Federal authorities of certain pioneer Mormons for plural marriages, interesting stories are told concerning "an underground railroad" by the use of which Mormons, fleeing south from Utah, were enabled to find sanctuary in Old Mexico. ronte lay south across Lee's Ferry down through Snowflake and over the mountains to Mesa, near which town a camp was maintained in the Superstition Mountains. The journey through settled regions was made at night, the Mormons from each Arizona colony passing the fugitives from one station to another. From Mesa the journey was taken to Deming, New Mexico, and thence to Diaz in Old Mexico, where residence was maintained until safety was assured to the exiles in their old homes.

THE RESTORATION OF SAN XAVIER

As we have seen, mission days in Arizona came to an end with the expulsion of the Franciscans, which followed soon after the formation of the Mexican republic in 1827. From that time on Tumacacori has been a ruin, but San Xavier seems to have been occasionally visited by the priest at Magdalena, under whose charge it had been placed by the bishop of Sonora. In 1859 what is now known as Arizona was made a part of the diocese of New Mexico, with Bishop Rt. Rev. J. B. Lamy in charge, his headquarters being in Santa Fé. Soon after this addition to his diocese the bishop

sent his vicar-general, Rev. J. T. Machebeuf, on a tour of inspection in Arizona, who reported Tumacacori in ruins but San Xavier in fair condition.

In 1863 two Jesuits from the Santa Clara College, California, took charge of the mission at San Xavier. Upon arrival they were received by the Indians who, with great demonstrations of joy, rang the bells and exploded fireworks in their honor.

Hearty as their welcome was, the priests were even more delighted when their Papago charges brought to them articles for the altar which had been kept hidden by the tribe, waiting the day when their spiritual fathers should return.

In 1898 Bishop Henry Granjon of Tucson had a large niche cut in a little butte overlooking the mission, and in it placed a replica of the shrine of Lourdes. The land around the mission is now a part of a Papago Indian reservation, and the well-tilled fields thereon are irrigated by water from the Santa Cruz.

The territory embraced within the limits of Arizona was formed into a separate diocese in 1868, with Bishop J. B. Salpointe in charge. It is now known as the diocese of Tucson with the Rt. Rev. Henry Granjon bishop.

At present, 1918, there are within the diocese thirty-two parishes with resident priests and sixty-four churches without. There is also within the state, conducted under Catholic auspices, one college for boys, six schools for Indians, one orphans' home and four hospitals.

The Catholic population of the state is given as about fifty-five thousand.

OTHER CHURCHES

The earliest missionary activities of the Protestant Church in Arizona, of which we can find record, began in late Civil War times. In 1864 church services were held in a log cabin in Prescott by the Rev. Wm. H. Reid, who was postmaster as well as pastor. A Sunday school was organized August 7th of the same year. Rev. J. L. Dyer was a Methodist minister who did missionary work in the state in 1868. The First Presbyterian missionary in Arizona seems to have been Rev. J. N. Roberts, who ministered to the Navajos in 1869. Also, that same year, James A. Skinner was sent by the American Bible Society to Prescott. Under the leadership of Rev. George H. Adams, one of the most active of Arizona's early ministers, in 1879 a state Methodist organization was effected. The Rev. J. C. Bristow preached the first Baptist sermon to be delivered in the state under a cottonwood tree at Middle Verde, October 10, 1875. In 1880 the Baptists established the "Lone Star" Church at Prescott, and a year later organized the Arizona Central Association.

A writer in 1885 says that until Arizona was penetrated by railroads the mission boards found great difficulty in securing men for this isolated region. As late as 1880 there were but four regularly established Protestant places of worship in

Arizona, and these were small, having a combined seating capacity of one thousand, with a state population of thirty thousand. By 1885 we find a marked improvement. The Methodists had churches at Tombstone, Tucson, Globe, Florence, Prescott, Phoenix and Pinal; the Presbyterians at Tucson, Tombstone, Phoenix and Prescott; Methodist South at Prescott and Phoenix; Baptist, Phoenix, Prescott, Globe and Tucson; Congregationalists, Tucson and Prescott; Episcopalians, Tucson and Tombstone. At that time the Mormons had thirty-five churches and a membership of five thousand. The Catholics, too, had many parishioners, including Mexicans and Indians, and had churches at Prescott, Phoenix, Florence, Tucson, Tombstone, Tubac and San Xavier.

Although, in the Episcopal Church, four bishops previously had had nominal jurisdiction over Arizona, Bishop George K. Dunlap found, in 1880, "not a church building, . . . not an organized congregation, not a clergyman." During the eight vears he was in charge of the diocese, church buildings were erected at Tombstone and Phoenix, and a congregation ministered unto at Tucson. 1889 the diocese, which then included Arizona, New Mexico and Texas, west of the Pecos, was given in charge of Bishop J. Mills Kendrick, one of the ablest and at the same time one of the most unassuming soldiers of the cross that ever lived in the Southwest. For twenty-three years he traveled back and forth over the same weary desert Padres Kino and Garces had encountered nearly two hundred years before. Under his fostering care churches were built at Prescott, Globe, Douglas, Bisbee, Winslow, Williams and Nogales, all of which edifices he insisted must be built without debt. When the members of the church at Tucson had the walls up for a new church, but no money in sight for the roof, they suggested borrowing, but the bishop responded that he could see no finer compliment that could be paid to the climate of Tucson than for a congregation to worship with but the sky for a covering. The members took the delicate hint and went down into their pockets and paid for the roof.

Desiring to help the Indians in a way that the Redmen could appreciate was really for their benefit alone, Bishop Kendrick was the means of establishing the hospital of the Good Shepherd near Fort Defiance on the Navajo Reservation, his thought being that it would be a memorial of an unselfish gift of a strong race to a weaker one. Apparently unmindful of the irritations of stage travel and rugged roadside lodging that would have maddened a less serene character, he used to say that at times he noticed certain inconveniences in going about the more remote portions of his stupendous diocese, but as for discomforts he never encountered them. He died, in 1911, beloved by all who knew him, and revered as one of the saints of the earth.

When the overlarge diocese originally covered by Bishop Kendrick was divided, Arizona was given in charge of Bishop Julius W. Atwood, former archdeacon and rector of Trinity Church, Phoenix. Doctor Atwood, a man of scholarly attainments and a most efficient organizer, has done much for his church in the state, one notable example of his many activities being the colony sanatorium of St. Luke, which was built and is being maintained largely through his efforts. It is located near the city of Phoenix, where patients are treated for tuberculosis in the most comfortable surroundings. It is one of the best institutions of the kind in the Southwest, and has been of incalculable benefit to many people.

According to a statement made May 1, 1917, by the Episcopal Church, that denomination has four parishes, eighteen organized missions and twenty-seven unorganized missions with seventeen presbyters and twenty-five lay readers; their communicants number 2,616, with 1,215 Sunday school members.

The minutes of the general assembly of the Presbyterian Church, published May, 1917, give the following statistics for Arizona: Ministers, 38; local evangelists, 11; churches, 44; church members, 4,382; Sunday school members, 4,982. Statistics of other denominations, compiled by Rev. E. D. Raley, general secretary of the Arizona Sunday School Association, are: Methodists, 30 churches, 3,700 members; 40 Sunday schools, 6,000 attendance; Baptists, 41 Sunday schools, 2904 attendance; Methodist Episcopal South, 9 churches, 1,400 members; 9 Sunday schools, 1,200 attendance; Christian, 10 churches,

1,000 members; 10 Sunday schools, 1,200 attendance; Congregational, 7 churches, 600 members; 9 Sunday schools, 700 attendance; Union and other schools, 128 with an attendance of 6,155. The Baptists report 38 church houses with 50 churches and 3,099 members. The Christian Science Journal gives the number of churches in the state as 3, with 6 societies and 20 practitioners. Christian Scientists do not give statistics as to membership.

Under the superintendency of Rev. E. D. Raley, a Protestant orphanage has been established at Tucson, where 111 children were cared for in 1917. Both it and the orphanage of the Catholic Church are doing excellent work.

Y. M. C. A.

The Young Men's Christian Association is one of the most active organizations for moral and spiritual uplift in the state. There are regularly organized buildings and equipment in seven cities, divided as follows: City associations, Phoenix and Tucson; industrial associations, Bisbee, Clifton, Miami and Hayden, and a railroad association, Douglas. In addition to these there are student associations at Tucson and Tempe, and Indian associations in Phoenix and Tucson. There are army Y. M. C. A. buildings at Douglas, Nogales and Yuma, and special war work looked after at Ajo, Laguna Dam, Roosevelt Dam, Granite Reef Dam, Globe, Miami, Naco, Warren and Slater's Banch.

The Young Women's Christian Association also has active organizations in the principal cities of the state.

SCHOOLS

The earliest schools in Arizona were those at Tucson and San Xavier del Bac, conducted under the auspices of the Catholic Church, most of the pupils being either Mexicans or Indians.

Governor Goodwin, in his message to the First Legislature, recommended that the "common school, the high school and the university should all be established and are worthy of your fostering care," and, in following out his ideas, the law-makers appropriated \$250 for the school at San Xavier and a like amount for the schools at Prescott, La Paz and Mojave, provided that each town raised a like amount. Five hundred dollars was also appropriated to establish a public school in Tucson, in which "the English language was to form a part of the daily instruction."

Arizona's second governor, Richard C. McCormick, in his message to the Legislature in 1865, says that Prescott was the only one of the four towns of Tucson, Prescott, La Paz and Mojave to take advantage of the appropriation offered by the First Legislature, and adds: "I am inclined to think that the existing provisions for schools in the various parts of the territory are now sufficient." When we remember that this seems to leave San Xavier and Prescott the only places of learning in the state, we are prone to wonder just

what the worthy executive meant. Let us hope that there were also private schools.

The first public school of Tucson was opened in the fall of 1869 and taught by Augustus Brichta who had been assistant clerk in the Legislature.

His pupils were all boys, and all Mexicans—fifty-five of them—and the school was held in an adobe building near Lavin's Park, with a dirt floor and no furniture but pine benches.

The following year the school was moved to Meyer Street, where a new teacher, John Spring, enrolled 138 boys. Five per cent of them were Americans.

In 1872 Mrs. L. C. Hughes opened Tucson's first public school for girls. It was located at a house in Levin's Park and was well attended.

A year later Phoenix had its first public school. By 1882 there were 2,844 children attending public schools of the state, with 102 teachers to instruct them. During that year \$83,267.93 was paid out for school purposes. At the same time there were 9 private schools with 15 teachers.

Today no state in the Union has a higher standard for primary, grammar and high schools than Arizona. In cities like Phoenix, Tucson, Douglas, Bisbee and Prescott, handsome, well constructed, well equipped brick or concrete buildings are a perpetual surprise to the visitor, and even in the rural districts one finds the school buildings not only well constructed but of artistic and pleasing design, with grounds often beautified with trees, grass and flowers.

The educational requirements of teachers are high and the work done in the schools is of the best. Salaries paid teachers compare favorably with those in such states as California or Illinois.

The amount of money expended for the common schools of Arizona for the year 1916-17 was \$2,869,230. In 1917 there were enrolled in the schools of the state, primary and grammar schools, 55,702 scholars; in high schools, 3,664. In the state's teaching corps there were 1,448 in primary and grammar schools, and 238 in high schools.

STATE UNIVERSITY

Arizona's State University was brought into being in 1885 by the state legislature, more for political reasons than from an appreciation of the value of such an institution to the state. It "balanced up," giving a hospital for the insane to Phoenix, the State Normal School to Tempe, a bridge to Pinal County, a prison appropriation to Yuma, and letting Prescott keep the capital a while longer. A forty-acre site was donated for the campus by public spirited Tucson citizens. Just as the original building was completed, a Federal act was passed appropriating \$15,000 to agricultural experimental stations connected with state or territorial universities. Naturally the Board of Regents felt a keen need for the money. They had no experiment station, but they could easily make a start in that direction by selecting a director. Selim M. Franklin, one of their number, was an excellent lawyer and could tell a thistle from an artichoke. Who could make a better director than he for the experimental station? So they elected him to the position without salary—and secured the \$15,000. Now they had a building and a director, but no students. High schools were as scarce in Arizona in 1885 as hens' teeth, so a "prep" school was started as a feeder to the higher halls of learning.

However, the University of Arizona soon passed out of the chrysalis stage. The legislatures were liberal with appropriations, handsome and wellequipped buildings were erected and competent instructors secured. The aims of the regents seem to have been to build up a school that would graduate young men and women equipped to meet conditions as found in Arizona, and to that end strong emphasis have been placed upon mining and agriculture. Excellent as the work along these lines has been, it has not been at the expense of the cultural development of the undergraduate, and so in addition to the branches mentioned we find the university embraces a splendid college of letters, arts and sciences. In the University Extension service special short, mid-winter courses are given to farmers and housewives in agriculture and domestic science, and investigational work of great value is being carried on in various agricultural experimental stations, which work is directed from the university.

Altogether the officers of instruction and in-

vestigation number something over one hundred, and while we are being statistical we may add that in 1917-18 the number of regular students totaled 440; special students, 34; students in short course for farmers, 121; in home economics, 137; correspondence students, 20.

Not content, however, with what has already been attained, under the able leadership of President R. B. von KleinSmid, the university's standard of scholarship and service is constantly being raised, and already this really notable institution of learning is taking an advanced position among the universities of the Southwest.

MODERN INDIANS AND INDIAN SCHOOLS

In the Government's dealings with the Indians of Arizona in the early pioneer days, we have seen vacillation and weakness in policy, many blunders and much to criticize. Now, when we come to consider what is being done for these native tribes today, our only words are those of unstinted praise.

The Indians of the state are still chiefly located on various reservations. The Navajo agency head-quarters is located at Fort Defiance, with some of the tribes coming under the jurisdiction of Tuba, Leupp and Keams Canyon. The Papagos have recently had assigned them, by executive order, a large reservation in southern Arizona with head-quarters at Indian Oasis. The Pimas are divided between the Gila River Reservation, with head-quarters at Sacaton, and the Salt River Reserva-

tion, with headquarters at Salt River, the Apaches at old Fort McDowell also coming under this jurisdiction. The Hopi agency headquarters is at Keams Canyon. The Havasupai Indians are at Supai, in the scenic Havasu Canyon south of the Grand Canyon. The Maricopas come under the jurisdiction of the Gila River agency. The White Mountain Apaches have two large agencies at White River and San Carlos. The Mojave Apaches are located at Fort Mojave and Colorado River consolidated agencies. The Wallpai agency headquarters is at Valentine in Truxton Canyon in Mojave County.

Under the United States Indian service the national government is sparing no pains to make it possible for these Indians to support themselves from the soil. As we have seen, water supply is the determining factor in successful agricultural practice in Arizona. To this end the Indian service is building reservoirs and diversion dams and putting down wells wherever possible.

On the Navajo and the Hopi reservations, under the direction of Supervising Engineer H. F. Robinson, the Government has drilled about two hundred wells, about half of which have been equipped with windmills for pumping and tanks for holding water for stock and domestic purposes. This has increased the grazing area so much that the Indians' flocks of sheep and goats have multiplied from one hundred to five hundred per cent in the past five years.

At Ganado, also on the Navajo Reservation, an

irrigation project, which includes a storage reservoir, nears completion. Seven hundred acres of land are now being irrigated, and it is expected that a thousand acres more may ultimately be watered by the project.

At Salt River, in Maricopa County, the Pimas irrigate their fields from water supplied by the Roosevelt irrigation project. At the Gila River Reservation, as has been elsewhere noted, ten wells pump water with power derived from the Roosevelt power plants. This water supply will be further augmented when a diversion dam, now being built on the Gila above Sacaton, is completed. Ultimately the San Carlos Reservoir also will be built, and furnish water for the reservation Pimas as well as to the white farmers around Florence. Seventeen thousand acres of land are being irrigated for the Yuma Indians by the Laguna project. At Parker it is planned to develop irrigation water by extensive pumping, where it is hoped that about fifteen thousand acres will be irrigated.

Ignorance is as bad for an Indian as it is for a white man. To prepare the native to take his place in modern American life, most excellent schools are being maintained for him where an education fitted to his needs is supplied at Government expense.

The chief school of the state is at Phoenix. It is co-educational, and, including the sanatorium, which is operated in connection with it, has a capacity of seven hundred pupils. The school is supported entirely by annual Federal appropria-

tions, averaging about \$135,000. There is a force of 72 employees, of whom 12 are academic teachers. Students are received from about 40 different tribes, at ages varying from 14 to 20 years, who enroll for a period of three to five years. This enrollment is voluntary, but once enrolled the pupil must remain for the entire period.

The school teaches girls sewing, cooking, laundering, nursing and general home-making industries. The boys receive instruction in agriculture, including care of dairy and garden, poultry husbandry, blacksmithing, painting, engineering and electric work, plumbing and sheet metal work, printing, tailoring and harnessmaking. The course in these trades covers four years and is known as the vocational division and follows the completion of the sixth grade; hence the graduates have the equivalent of two years' high school work, besides their industrial training. One-half of each day is spent in industrial work.

In addition to the Phoenix school there are about thirty governmental day schools in the state and nine boarding schools, all situated on various reservations.

In addition to this there are a few private schools, usually under the auspices of some religious organization.

The question is often asked, "What becomes of the students when they return to the reservation?" In considering the matter, one must keep in mind that individuals differ among Indians the same as they do among whites. Some succeed, others fail, and the determining factors for success or failure are with them very much as they are with us.

The Phoenix Indian School was founded in 1891, and when the first graduates returned to the reservation, it need not be considered strange if their new ideas were received with some distrust and suspicion by the older members of the tribe. Today, when the Pima, for example, returns to the reservation, he is met by middle-aged Indians who, like himself, have had the benefits of schooling, and the improved condition on the reservation today, though not so conspicuous, possibly, are as real as they are in white communities in Arizona.

If we have given the renegades among the old fighting, depredating Apache a hard name, we here take pleasure in saying that among the most intelligent pupils in the modern Indian schools are the Apaches. Members of the same tribe did good work on the Roosevelt Dam, and young men of the tribe equipped with an industrial education are now useful, valuable members of society.

Members of all the principal tribes of the state since the beginning of the European War have enlisted not only in the army, but in the navy as well, and hold their own with the whites.

CHAPTER XXII

THE SPANISH-AMERICAN WAR

A RIZONA'S military contribution in the Spanish-American War was three troops in the First United States Volunteer Cavalry—the famous "Rough Riders"—and three companies of the First Territorial Infantry.

In Arizona the recruiting for a cavalry force began even before the declaration of war, April 21, 1898, and was looked after in the northern part of the state by Wm. O. O'Neill, a prominent Arizona journalist and politician, subsequently captain of the Rough Riders, and Jas. H. McClintock, a well-known journalist who afterwards became, first, a captain of the Rough Riders and later colonel in the Arizona National Guard.

Although nearly one thousand men were recruited for cavalry service, and though their officers promptly offered their services to the nation, when the call finally came from Washington it was for but 210 men, which were to constitute a part of "a crack regiment of cavalry . . . for special duty."

Governor Myron H. McCord nominated Alexander O. Brodie as major, and McClintock and O'Neill as captains.

Brodie, later to be Arizona's governor, was a

graduate of West Point and one of General Crook's lieutenants in his campaign against the Indians. He had retired from the army to become a civil engineer. Brodie, McClintock and O'Neill were splendid men and made good officers.

The lieutenants in O'Neill's troop were Frank Frantz and Robert S. Patterson. Those to go with McClintock were Lieut. J. L. B. Alexander and Lieut. George Wilcox.

The mustering in took place at Fort Whipple Barracks, from where Arizona's two troops, A and B. of 107 men each, were taken to San Antonio. Here Col. Leonard Wood assumed command and the regiment received its war training. At San Antonio thirty-seven men from A and B troops were given to a new troop "C" of which J. L. B. Alexander, prominent Phoenix attorney, was given command: Second Lieutenant Patterson was advanced to a first lieutenant in troop C, and Hal Savre, a Colorado soldier, was made second lieutenant. In troop B, Wilcox was made first lieutenant, and First Serg. T. H. Rynning, of regular army experience and afterwards captain of the Arizona Rangers, was advanced to the position of second lieutenant.

It was at San Antonio that the term Rough Riders was really earned. The regiment was given a lot of half-broken range horses to ride that would often enliven the tedium of parade by bucking all "over the lot." It was also there that the inspiring strains of "A Hot Time in the Old Town Tonight" were played so often by the regimental band that

the Texans decided that it must be the battle hymn of the Rough Riders.

The next halt on the way to Cuba was made by the Rough Riders at Tampa, Florida, which was reached June 4th, and there they were made a part of the First Cavalry Brigade under command of Gen. S. M. B. Young.

On June 7th word came that eight dismounted troops, including A and B, of seventy men each, were to go forward while the rest were to remain at Tampa with the horses, with the understanding that they were to follow soon. Lieut.-Col. Theodore Roosevelt and Major Brodie each commanded four of the troops that went.

There was much confusion of orders, but on June 13th the eight troops finally got to sea on a transport, the Yucatan No. 8. Landing was made at Daiquiri, Cuba, on June 22d. The next afternoon the regiment was marched twelve miles through a jungle to Siboney.

The day following the engagement of Guasimas was fought. The Spanish force was estimated at 4,000; the Americans numbered 940. The engagement lasted for about two hours in which the Americans advanced steadily, firing at will.

Captain McClintock says that probably the Spaniards had been leaving their entrenchments for some time before the final rush of the Rough Riders, for when the Americans reached the trenches only twenty-nine Spanish dead were found.

Of the Arizona men, Major Brodie was shot in

the arm, Captain McClintock received several machine gun bullets in the ankle, Corp. George H. Doherty and Private Edward Ligget were killed, and T. W. Wiggins and N. L. Orme badly wounded.

Colonel Wood was now given the rank of a brigadier general and Colonel Roosevelt became commander of the Rough Riders, leading his troops in person and sparing himself no labor in seeing that, in a campaign woefully mismanaged, his troops received what comforts he could provide for them.

The Arizona Rough Riders had an active part in the sharp fighting at San Juan Hill, July 1st to 3d, besides gallantly participating in the rest of the Santiago campaign. At San Juan, led by Colonel Roosevelt, they charged an extension of the main height called Kittle Hill and took it, driving a large force of Spanish infantry from their entrenchments.

There were not a few deaths in the Cuban campaign, both in action and from fever-infested camps. Captain O'Neill was killed in the first day of the San Juan fight, when Frank Franz was advanced to his place.

Worn by fever even more than with the usual hardships of fighting, the regiment left Santiago August 8th for Montauk Point, to which place Troops C, H, I and M, which had been left at Tampa, had been removed a few days before. The regiment was mustered out of the service September 15, 1898.

A splendid statue in bronze of a mounted

soldier in action, typifying Captain O'Neill and dedicated to the Rough Riders, has been placed in the court house plaza of Prescott. The statue, striking in appearance, is the work of Solon Borglum, and is a fitting memorial of the services of Arizona's famous troopers.

The First Territorial Infantry, through their officers, made every endeavor to get to the front, but never were nearer Cuba than Camp Churchman, near Albany, Georgia. The regiment, a splendid body of men, was well officered and would doubtless have given as good an account of itself in the battlefield as the First Cavalry had it been given the opportunity. The officers included: Colonel, Myron H. McCord; mayor, Frank Russell; regimental adjutant, J. W. Crenshaw.

Company A of Phoenix was originally organized with Russell as captain, Crenshaw, first lieutenant, and with F. W. Hill as second lieutenant. The men were all recruited from the National Guard. Company B, with Capt. Herbert S. Gray and Lieuts. Wiley E. Jones and Emanuel Drachman, recruited its men from Tucson and other southern towns. Company C of Prescott and Flagstaff had for its officers Capt. C. E. Donaldson, Lieuts. F. C. Hochderfer and W. G. Scott. With the promotion of Russell to the position of major, George Christy became Captain of Company A; Hill, first lieutenant, and E. M. Lamson, second lieutenant.

CHAPTER XXIII

ARIZONA AT LAST A STATE

T was on St. Valentine's Day, February 14, 1912, at 10 o'clock A. M., that President Taft, with a bright, new, gold pen, affixed his signature to the proclamation making Arizona a state. Immediately afterwards the President advised Governor Sloan of his action by telegraph and extended his congratulations to the people of the state thus created.

As soon as Governor Sloan received the message he at once proclaimed the day a holiday, under the title of "Admission Day," and the state gave itself over to rejoicing.

The inauguration of Gov.-elect G. W. P. Hunt was performed with democratic simplicity. Declining the use of an automobile as being out of the spirit of the new administration, Governor Hunt, followed by a long train of friends and personal adherents, walked the mile or more that lay between his hotel and the capitol.

As the governor-elect appeared on the front portico of the building, he was enthusiastically cheered by the throng of people who had gathered to do him honor.

In his address he referred to the constitution in terms of warmest commendation and pledged

himself and his administration to its progressive principles. Thus statehood had its genesis.

The first United States judge to be appointed in the commonwealth thus reborn was Ex-Gov. R. E. Sloan. However, Judge Sloan was not wholly popular with the democratic politicians. First, he was a republican, which was bad enough; secondly, while known to his friends as anything but a reactionary, when compared with the spirit of the new constitution he was most decidedly conservative, which was worse. So, as various charges had been made against Sloan accusing him of unfitness for office, his appointment was held up by the Senate at the instance of the two Arizona members. However, this did not prevent Judge Sloan from receiving an ad interim appointment in August from President Taft, and from holding the position until the end of the presidential term.

Wm. H. Sawtelle, the present United States District Judge, was appointed in August, 1913.

The First State Legislature convened March 18, 1912. In the Senate there were four republicans and fifteen democrats, with M. G. Cunniff as president; the House, composed of four republicans and thirty-one democrats, had Sam B. Bradner for speaker. These lawmakers were a busy lot, passing ninety-six acts and six joint resolutions. Included in the laws thus created were many favoring labor and many making regulations for railroads. One of these regulations specified the maximum number of cars to be allowed to a train; another gave the number of men to be employed

on trains and engines; a third specified the minimum of candle power permitted in a headlight.

Among the "labor" acts may be mentioned an act prescribing a lawful day's work, an act to provide for employers' liability to workmen and an act regulating the employment of women and minors.

Teachers who had taught for twenty-five years in the Arizona public schools might be pensioned, and free textbooks were to be provided for children.

One important piece of legislation passed created a state tax commission, consisting of three persons, which was given large powers in the supervision of the tax system of the state. This act was specially advocated by Governor Hunt, who stated that the proposed plan would make a notable advance not only in giving the different counties a uniform tax levy, but, as well, would insure an adequate and equitable assessment of copper mines and other valuable corporation owned property in the state.

To further the agricultural interests of the commonwealth, a horticultural commission was established, and an appropriation made for the investigation of the water resources of the state.

A special session of the Legislature began May 23d and ended June 2, 1912. At this session eighty-four acts were passed with five concurrent resolutions—surely laws enough to make everybody good and regulations enough to make everybody happy!

At the republican convention held at Tucson

June 3, 1912, to elect delegates to the national convention, there developed a decided split in the party. Both Maricopa and Cochise, the two most populous counties in the state, were in favor of Roosevelt; nevertheless, through the aid of the chairman, both were claimed for Taft. Not unnaturally the Roosevelt faction withdrew and held a separate convention, only to have their delegate refused admittance when the national convention assembled at Chicago.

At the fall election, 1912, Arizona again showed how firmly she had aligned herself with the democratic party. The vote for president was as follows; Wilson, 10,324; Roosevelt, 6,949; Debs, 3,163; Taft, 3,021; Chafin, prohibitionist, 265.

Also, at the same election, Arizona voted upon a number of constitutional amendments and referred bills, the most important of which was woman's suffrage, which received the substantial endorsement of the people in a vote of 13,452 for to 6,202 against.

Here it may be said that the only surprising thing about granting the women of Arizona the franchise is that it wasn't given them sooner. Undoubtedly they would have voted years earlier if the politicians had been of the same mind as the average citizen.

Equality between the sexes in the state, when one comes to think of it, certainly has the sanction of antiquity. It existed to a surprising extent among the aboriginal races. With the intelligent Hopis, the woman builds the house—and rules it—

just as the man tills the field and is master there. Membership in the tribal clans, which is a birthright, descends through the mother; and the girl, quite as often as the youth, takes the initiative in proposing marriage.

In the case of the Zunis, "the children belong to the mother, and she can order the husband from the house should occasion arise."

As has been mentioned elsewhere in this history, the Navajo woman occupies quite as important a place in the tribal life as a man. She knows her rights and isn't afraid to assert them.

Whether the women of the white pioneers felt the influence of this environment we do not pretend to say, but they certainly occupied no inferior part to the men in establishing homes in the wilderness.

In the early Mormon settlements, and there were many such in the state, the women not only took an active part in the work of the church, but also in the matters pertaining to civic duties as well. Andrew Kimball, president of one of the four principal divisions of the Mormon Church in Arizona, in the Twenty-first Legislature, in 1901, led the fight for woman suffrage, but was beaten by the politicians. Gov. N. O. Murphy, in 1892, and Gov. L. C. Hughes, in 1893, favored such a measure. For many years women in Arizona have voted at school elections, both in the matters of bond issue and election of trustees, and they cast their ballot with quite as much wisdom—or folly—as their male relatives.

The truth is that the politicians were afraid of the women—afraid they would vote the state "dry"—which they did; and afraid they would do all sorts of other unreasonable and revolutionary things—which they did not—or certainly no more than the men.

At the first election for state officers following her enfranchisement, two women were elected as members of the state legislature, Mrs. Frances W. Munds, of Prescott, to the Senate, and Mrs. Rachel Berry, of Apache County, to the House. Two years later, in 1917, Mrs. P. M. O'Neill, of Phoenix, who had also been elected a presidential elector in 1914, Mrs. Theodore Marsh, of Nogales, and Mrs. Rosa McKay, of Bisbee, were members of the House. The political records of these women compare very favorably with those of the masculine members. All have been democrats, and, with possibly one exception, most ardent partisans. They have been industrious, capable, anything but frivolous; and, as might have been expected, conspicuous champions of all moral measures. Whether any great matters of public policy in Arizona have been changed owing to woman's possession of the ballot (with the possible exception of prohibition) is to be doubted; on the other hand, none of many predicted disasters have come to pass. The usual procedure is for a husband and wife to look over the sample ballot and decide for whom they both will vote. Perhaps conjugal opinions are apt to differ more as to the merits of proposed initiative or referendum measures than as to candidates. One thing is certain, Arizona women as a whole have proven that they exercise the right of franchise quite as intelligently as the male citizens. For the credit of the masculine sex, we hope this may be taken as a favorable comment.

A bill limiting the railroad fare to three cents a mile was passed by the First State Legislature and approved by the people in a referendum vote in the fall of 1914; nevertheless, when it came up as a factor in a case before the Supreme Court, it was decided that changes in public service charges could only be made by the corporation commission.

Other initiative measures which carried at the 1914 election included one prohibiting blacklisting of laborers, an old age and mothers' pension act and an "Act to Protect Citizens of the United States in the Employment of Non-citizens of the United States in Arizona."

All three of these measures were later declared unconstitutional by the courts.

By far the most important initiative measure passed by the people that fall was that prohibiting the manufacture or sale of intoxicating liquors, which carried with a majority of 3,144, the greatest strength for the measure coming, as might be expected, from agricultural sections.

If in the pioneer days a man had predicted that the time would come when Arizona would vote itself "dry," he would have been considered a fit subject for an alienist. In those times an Arizonan who didn't take an occasional drink was looked upon with decided suspicion.

Among the elements that made for Arizona's first governor's popularity were, according to Farish, that "He enjoyed a toddy, liked a game of 'draw,' and was pleasant, affable and courteous to everyone."

Yet Governor Safford, as early as 1874, stated that nine-tenths of the crimes of the day were due to ardent spirits.

In 1884 a visit of Miss Frances Willard to Tucson resulted in the organization of a territorial W. C. T. U. A few months before a local branch had been established at Prescott and later branches were started in Phoenix and other places in Arizona.

In 1901 a local option bill was passed by the Twenty-first Territorial Legislature, and in November, 1914, as has been stated, the voters of the state passed a prohibition measure as a constitutional amendment.

While the women were very active in the fall campaign against the "Demon Rum," they would scarcely have won without the help of the "average business man," and the average business man voted "dry" not because he considered the drinking of intoxicating liquors sinful, but because he believed that its use made most men less efficient and did no man any good. Contractors employing many laborers had learned that, under local option, labor was at least five per cent more efficient

in a dry town than in a wet one, so they decided that they would like to try the experiment of a dry state.

Generally speaking, the law has been enforced. Most sheriffs and city police officers, who in the old days took their convivial glass with their friends as a matter of course, now see in the question only a statute that must be complied with.

As might be expected, boot-legging has been attempted in most of the towns, but it is a precarious and hazardous business.

In Phoenix, to cite but a single example, in the spring of 1918, a man who was bringing in liquor in an automobile was shot while resisting an officer.

To correct deficiencies in the original law which enabled the chronically thirsty to ship in ardent spirits from wet states, an amendment to the constitution was submitted to the people of the state at the fall election in 1916. Under this additional law it not only was unlawful for anyone to ship in liquor, but to have the same in one's possession. Exceptions, however, were made which allowed the use of wine for sacramental purposes and permitted the University of Arizona to use grain alcohol for scientific purposes. It also provided for the general use of denatured alcohol.

This measure passed by a much larger majority than the original law, giving evidence that the people as a whole were satisfied with the experiment.

In 1914 all the democrats holding state offices

secured renomination except Atty.-Gen. G. P. Bullard, who had resigned, and in November, in opposition to the republicans and progressives, they were all elected to a man. Bullard was succeeded by Wiley E. Jones. Among the others so chosen were Governor Hunt, Congressman Hayden, Senator Smith and Secretary Sidney P. Osborn.

When the Legislature convened January 11, 1915, with fifty-three democrats and one lone republican, among the many acts passed was one prohibiting barbering on Sunday, and another creating a bureau of mines at the state university. Greenlee County was to be assisted in obtaining artesian water and Congress was memorialized to have a barbed wire fence built on the International Line between Arizona and New Mexico.

A second session was called to convene April 23d, and a third June 1, 1915.

In the summer of 1916 George A. Olney announced himself as a democratic candidate for governor in opposition to Gov. G. W. P. Hunt.

Governor Hunt, from his record both whenpresident of the Constitutional Convention and as governor, was considered the special champion of labor and a friend of labor unions and represented the more radical wing of his party. Olney, on the other hand, was considered a conservative, and was supposed to have the backing of the "business men." Also, he was accused—a serious indictment in the eyes of many a voter—to have the "support" of the copper mine owners. In the campaign which followed the adherents of the two candidates fought each other with a warmth seldom equaled in conflicts between parties.

At the primary election, Hunt was easily the victor, winning by a substantial majority. This passage at arm, however, proved to be but a preliminary skirmish; the real battle was to be between Governor Hunt and the republican nominee, Thos. E. Campbell, who had been his party's candidate for Congress in 1912, and had been elected tax commissioner in 1914.

The republican party in the state was undoubtedly in the minority, but with the conservative element in the democratic party wholly opposed to Hunt, it was believed that Campbell had a good chance to be elected. Still, with Hunt's undoubted strength among the working people and the radicals, his followers predicted an easy victory for their chief.

When election day was over and the returns began to come in, it was seen that the vote would be very close. Finally, after a season of suspense, the official count gave Campbell a plurality of just thirty votes.

As was expected, a contest was at once started by Governor Hunt with Eugene Ives as counsel. Later F. C. Struckmeyer, L. B. Whitney and Frank E. Curley were also put on the case. Campbell's lawyers were Ex-Gov. R. E. Sloan, Judge John H. Campbell, John L. Gust, E. S. Clark and the firm of Ballard & Jacobs. The case was tried before Judge R. E. Stanford, in whose court judicial inspection of ballots began December 12th, and, with many interruptions, continued to May 21, 1917.

In the meantime, on January 1, 1917, on a writ of mandamus issued by the Supreme Court, Campbell entered upon his duties as de facto governor—with honors but without salary—pending the final judgment of the court.

Here is may be said that during the period Governor Campbell occupied the executive chair, he made a most excellent governor, although, with a Legislature containing but one republican, it was scarcely possible for him to do much towards influencing lawmaking. Nevertheless, being a man of striking personality and tact, he filled his trying position with ability and dignity. When the strikes at the copper mines grew serious, he went at once to Globe, and in his endeavors to reconcile the differences between employers and laborers he showed sympathy for the workmen with a real grievance as well as an appreciation of the rights of property owners.

In the Bisbee deportation trouble he was as firm in denouncing the lawless methods employed by those responsible for the deportation and the subsequent arbitrary methods used in dealing with "labor agitators" as he was in expressing his condemnation of the I. W. W., whose seditious doctrines and threatened violence had precipitated the affair. In the governor's words: ". . . The principles of the Industrial Workers of the World are a stench in the nostrils of decent Americans. Insofar as

my power as governor of Arizona extends, I shall not tolerate, in the remotest degree, their application in Arizona. A menace to civil well being and industrial progress in time of peace, the toleration of such doctrines during a state of war is treason.

The contest before Judge Stanford was finally decided in favor of Governor Campbell, the court ruling that he was elected by a plurality of sixty-seven votes.

An appeal to the Supreme Court of the state was taken May 15th, and on December 22, 1917, that body reversed the decision of the trial court, announcing through Chief Justice Franklin "That the said George W. P. Hunt was . . . and is now the duly elected governor of the state of Arizona . . . that he is entitled to the office with all its official belongings, and since the first Monday in January, 1917, to all of its emoluments." The change in the recount in the precincts considered by the Supreme Court gave Hunt a majority of thirty.

Perhaps there has never been a man active in Arizona politics who has been so cordially liked by his friends as is Governor Hunt, nor so whole-heartedly execrated by his enemies, who say he is a demagogic politician. However, a demagog doesn't often do things from principle that he knows will make him political enemies. Governor Hunt did them every day. A student of criminology, in the face of violent criticism he made radical changes in disciplinary measures at the state prison, abolishing the ball and chain, the

silence system, the tight-cropped head, and the conspicuous uniform. He sent convicts, on their honor, out to work upon highways without guards. At times his confidence has been sadly abused, but even though he carried his theories to an extreme that he has done more good than harm by his prison methods no one who has investigated his work can deny.

As a farmer boy, his parents, living in a district in Missouri impoverished by the Civil War, were unable at times to buy him proper school books. As a man he put a measure through the Legislature granting free textbooks to Arizona school children.

His popularity in his home, Gila County, is shown in the fact that it sent him to the Legislature for six different terms.

The Third Legislature convened January 8, 1917, and in some mysterious manner it appeared that five republicans had secured election to the Senate and four to the House. The rest were democrats, and among the ninety laws enacted may be mentioned one for the establishment of free employment bureaus in the state, an act appropriating \$200 for painting the portraits of certain legislative officers, establishing two game preserves and an act abolishing the "common" towel and the "common" drinking cup.

At the primaries held in September, 1918, Fred T. Colter, a prominent member of the Constitutional Convention and two succeeding legislatures, was given the democratic nomination for governor. Colter, who was supposed to represent the radical

wing of his party, was opposed in the primaries by Fred Sutter, conservative, and Sidney P. Osborn, who was inclined more to the "middle of the road."

In the republican ranks, ex-Governor Campbell was the one nominee, his large vote at the election two years earlier and his excellent record while occupying the governor's chair, preceding the supreme court decision which unseated him, making him the one logical candidate.

At the November election, in spite of the fact that Arizona is normally democratic by a substantial majority, Governor Campbell received 25,927 votes against 25,588 cast for Colter. George D. Smith, socialist candidate for the office, received 444.

Campbell's plurality of 339 was considered not only a tribute to his undeniable personal popularity, but an endorsement of his uncompromising stand, during the labor troubles of 1917, against the I. W. W.'s and all that they represented as well as a victory for a more conservative political doctrine as opposed to Colter's presumed extreme radicalism.

Maj. Carl Hayden, democrat, whose proven ability and loyal services to Arizona in the National House of Representatives gave him a strong following in Arizona among republicans, in addition to his constituents within his own party, was returned to Congress by a vote of 26,815 against 16,822 cast for Lieut. Thomas Maddock, republican, then with the American army in France, and 754 for P. T. Robertson, socialist.

Ten proposed laws were submitted to the vote of the people, all of which carried except one, a workman's compensation act in case of injury, etc., prepared, presumably, by the mine owners and opposed by the labor unions.

The other nine bills included restoration of public works to the contract system, restoration of capital punishment, redistricting state legislative districts so that house members would be elected from smaller units and an anti-vaccination measure.

Fourteen democrats and five republicans were sent to the state senate; while for the house, the count of ballots showed twenty-six democrats and nine republicans elected.

STATE FLOWER, ANTHEM AND FLAG

Arizona has its own official flower, anthem and flag. Its flower is the white, wax-like blossom of the Suhuaro (the Cereus giganteus) which puts forth its petals in June. Its anthem, "Hail to Arizona! the Sun-kissed Land," was written by Mrs. Frank Cox and Mrs. Elise R. Averill. Both flower and anthem were adopted by the Twenty-first Territorial Legislature.

The flag, which was adopted by the Third State Legislature, is described as representing the "copper star of Arizona rising from a blue field in the face of the setting sun."





LAKE MARY
On Automobile Road South of Flagstaff
Photograph by James McCulloch

CHAPTER XXIV

SCENIC ARIZONA

THE GRAND CANYON

N Arizona, Nature reveals herself in many ways of unusual grandeur and beauty. The desert in moonlight, with the giant cacti standing like ghostly sentinels guarding the wide expanse of plain; the Painted Desert, which at sunrise, with the different colored rocks and stretches of red and brown earth, has the effect of a gorgeous striped ribbon; the San Francisco Peaks, snowclad; the glory of the views on the Apache Trail; the purple shadows in the early morning on the west escarpment of the Superstitions; the Roosevelt Lake in late evening; the wisps of rain that in summer showers fall like bridal veils in the canyons of the upper Hassayampa—all these are scenes of quite indescribable loveliness; yet, as the ghostly rainbow of the moon, sometimes seen in the deserts of the southwest, pales before the radiant bow of day, so all the wonders of the views of which we have hinted become small before the majesty and sublimity of the Grand Canvon of the Colorado.

The greatest writers have tried to describe it,

the foremost of our painters have striven to reproduce it on canvas, and yet when one sensitive to form and color views it for the first time, after the minute of silence when the glory of it sinks into the soul—one can but murmur as though standing in a holy place, under the very mantle of the gods, "How could one dream it would be like this!"

What do the statistics mean? The average width of the canyon is eight miles, but portions are wider. Its sides are a succession of rocky slopes and precipitous cliffs, some are huge steps five hundred feet straight down. The total descent is over a mile below the north rim.

The river itself is about three hundred feet wide and thirty feet deep.

The walls of the canyon are red, yellow, black, gray, brown—painted with a gorgeousness that is the artist's despair, and varied by ever-changing lights and shadows, by summer showers, by winter's snows, by clouds that form in the depths of this caldron of Nature and rise upward like great, white balloons. What do you care whether the river is three hundred feet wide or thirty? To you, as you watch from Grand View, it is a river of platinum, dividing masses of sardonyx, jade and turquoise.

Yet, there is another side to the story, and that is where the history part comes in. For years the Colorado River, as it flowed between its mighty walls, was as unexplored as was the plateau of Tibet or the uplands of Bolivia a half century ago.

Coronado's soldiers, Don Garcia López de Cardenas, Captain Melgosa and Juan Galeras tried to descend to the river from the canyon rim and failed. Gen. W. H. Ashley, leader of a fur-trading expedition, in 1825, while descending Green River, a Utah tributary of the Colorado, became trapped between the walls of the canyon but finally escaped before really reaching the heart of the gorge. Lieutenant Ives, in his Arizona explorations, entered the Black Canyon from the lower river, but turned back, dismayed by the towering, flanking walls.

So the canyon was ever an unaccepted challenge until one day Maj. John Wesley Powell, a one-armed veteran of the Civil War and a professor of geology, came along and took the dare. On May 24, 1869, with nine companions in four boats, he embarked at Green River City, Wyoming, and, after shooting innumerable rapids and whirlpools, with adventures piled upon adventures, with many a danger passed, with many a hairbreadth escape, on August 30th, all but three of the party reached in safety the mouth of the Rio As for the missing three—about the middle of August, when near the end of the granite stretches, the rapids ahead looked so forbidding that Seneca and O. G. Howlands and W. H. Dunn decided rather than further court drowning to withdraw from the party. They took firearms, but, as provisions were very low would accept no food, expecting to find game enough to exist upon. After infinite toil they succeeded in climbing out

of the canyon, only to be slain a few days later by a band of Ute Indians, while the rest of the party passed the forbidding rapids in safety.

A second expedition was undertaken by Powell in 1871. This time he received \$10,000 from the Government to help defray expenses, and in addition to navigating the canyon, he undertook to survey the country for twelve miles each side of the gorge.

Besides Powell the party included A. H. Thompson, topographer, and F. S. Dellenbaugh, an artist and writer, and eight others. Again taking Green River City as a starting point, the journey was commenced May 22d, and on October 22d the party reached Lee's Ferry.

On August 13, 1872, after much topographical work had been done, seven of the original party, including Powell, once more embarked, and after passing through Marble Canyon and one hundred miles of the Grand Canyon, reached the mouth of Kanab Wash, September 7, 1872, where high water made it expedient to abandon the trip.

Capt. G. M. Wheeler, in 1871, headed a party that started from Camp Mojave, on the lower Colorado, on September 15th. After a most arduous trip the expedition reached the mouth of Diamond Creek, north of Peach Springs, on October 20th, when it was considered impractical to proceed farther.

In 1889 Frank M. Brown, a Denver capitalist, impelled by the daring notion that a railroad could be built through the Grand Canyon to the Gulf of

California, attempted to pass through the gorge on a reconnaissance. Starting down the Green River there were with him fifteen men in six very light boats. Disaster followed the party at every turn. Brown lost his life fifteen miles below Lee's Ferry, and, four days thereafter, two more of the expedition were drowned in Marble Canyon.

Undaunted by the death of his leader, in 1889-90, R. B. Staunton, Brown's engineer, with better built boats, made the voyage through the entire series of canyons, down the Colorado to the Gulf of California. Starting with eleven men besides the leader, one of the party, F. A. Nims, had a fall in Marble Canyon which broke his leg. He was lifted up over a 1,700-foot cliff and carried across a plateau to a point where he could be reached by wagon. Three others abandoned the trip en route.

A most successful navigation of the river was made in 1896-97, when two Mormon trappers, Nathan T. Galloway and William Richmond, drove two boats of their own manufacture from the Wyoming-Utah line to the Needles.

On September 12, 1909, Julius Stone, accompanied by Nathan T. Galloway as guide and R. A. Cogswell, a landscape photographer, with two others, outfitted with four flat-bottomed boats, left Green River and reached Needles November 15, 1909. The boats were made by Galloway, and the two navigated by him and Stone come through without an upset—a remarkable record.

Two years later, the Kolb brothers, Emery and

Ellsworth, practical photographers, made the voyage through the canyon for the purpose of taking motion pictures and other photographs. The trip was quite as full of thrills and adventures as any that had preceded it, and in addition to the really wonderful pictures that were secured, the record of their adventures has been made into a most interesting book written by Ellsworth L. Kolb.

No account of the Grand Canyon of the Colorado would be complete that did not mention the writings of George Wharton James, who has been making pilgrimages along the canyon walls for years. James not only has the faculty of observing new things with a discerning eye and seeing old things from new points of view, but can also tell about them in vigorous and picturesque English.

The canyon may now be visited with comfort, via the Sante Fé, which has a branch railroad running almost to the very rim. At the terminus is a beautiful and commodious hotel, El Tovar.

AUTOMOBILE ROADS

With the exception of a few miles of roads leading out of Phoenix, Arizona has as yet (in 1918) no paved state boulevards. Within the state, however, there are to be found excellent highways through some of the most beautiful country in America. Many of these roads have been built under the supervision of skillful engineers through the mountains with easy grades. In the highlands

of the state, and often in the desert country, decomposed granite, caliche or other good road surface material, easily accessible, has been used for road covering with most excellent results.

Three National highways cross the state. The most northerly of these is the National Old Trails road. This enters the state from New Mexico, going through Springerville, Holbrook, Flagstaff, Ashfork, Kingman, and leaves the state at the Needles on the Colorado. Except for a short distance in Mojave County, the road crosses a plateau a mile or more above sea level where it is cold enough for an occasional snow in winter, but where, in summer, a delightful climate can be found. Almost rainless in June, there will be encountered not infrequently summer showers in July and August. The fall months are also fine, but after the first of the year there may be winter rains or snows. Going northerly from Flagstaff and Williams are excellent roads leading to the Grand Canyon.

Very good roads also lead from Flagstaff to such points of interest as Oak Creek, where there is trout fishing, the cliff dwellings, the San Francisco peaks, the Hopi Indian villages and the Painted Desert.

These roads, as well as the one going from Flagstaff to Ash Fork, pass through beautiful pine forests. From Adamana there is a good road leading to the petrified forest, a short drive to the south.

From Holbrook one can drive southward to the White Mountains, a distance of sixty miles or thereabouts.

The White Mountain trip is a perpetual source of surprise to the traveler who associates Arizona only with the desert and the Gila Monster. Here grow pine, fir, spruce and juniper. Here wild turkeys and blue grouse are common, and trout streams abound. It is a paradise for the summer camper and as attractive as the Yellowstone.

Roads to the Navajo and Hopi Indian Reservation leave the Old Trails road at Holbrook, Winslow and Canyon Diablo.

The Ocean to Ocean Highway also enters the state from the east at Springerville, going from there in a southwesterly direction over the high timber-covered White Mountain plateau to Globe; from thence the road leads westward over the scenic Apache Trail past the great Roosevelt Reservoir to Phoenix. From Phoenix westward one reaches California across the desert, either via Yuma or Parker.

The main road connecting the Old Trails road with the Ocean to Ocean Highway goes south from Ash Fork via Prescott to Phoenix. The road from Ash Fork to twenty miles or so south of Prescott is in pines, but from this point the road drops down through picturesque foothills and finally over cacti-covered desert. From Prescott one can make very interesting side trips to the Verde Valley, where cliff dwellings can be visited, or to the mountain tops where there is spread out to the view as beautiful scenery as any that the world contains.

There is another road running north from

Roosevelt along Tonto Creek, through Payson and Pine, and then climbs up the mighty Mogollon Rim, and crosses the Mogollon plateau to Winslow or Flagstaff. Much of this road also is through a beautiful pine and oak-covered country.

The most southerly transcontinental road through Arizona is the Borderland Highway, which enters the state from El Paso and the east along the line of the El Paso and Southwestern Railroad. It touches the Mexican border at Douglas, then goes northwest through Tombstone, Tucson and Florence to Phoenix. Westward from Phoenix the traveler takes one of the roads already mentioned, to California.

It is scarcely worth while here to speak otherwise than very generally of the condition of these roads. Except during times of rain, the northern roads are apt to be always in a fairly good condition, and after rains the road overseers repair as rapidly as possible any damage by storms. The highways through the southeastern part of the state are also generally good.

HOTELS

The residents of the valleys of central and southern Arizona claim to have the finest winter climate in the world—and prove it. Nowhere else does one find in winter such sparkling sunshine, such mildness on February days, such radiant skies, such clear, starlit nights and such freedom from mists, dews and fog. In the high-

lands of Arizona one finds a summer climate as perfect as are the winter days in the valleys. Here one has the same sparkling sunshine but with a tonic in the cool, bracing mountain air, redolent with the odor of the pines, as refreshing as spring water to thirsty lips.

With these great climatic resources, the two parts of the state thus complementing each other, it is not strange that every year increases the number of visitors to Arizona. To meet the demands for modern accommodations for the stranger, excellent city hotels have been built, such as the Adams, Jefferson and Commerical in Phoenix, the Santa Rita in Tucson, the Copper Queen in Bisbee, and the Gadsden in Douglas. Also along the main line of the Santa Fé are the admirably managed, handsome Harvey Hotels at Winslow, Williams and Ash Fork. Besides these in the state there are three modern tourist hotels where the visitor can find all the modern comforts and luxuries in a perfect environment. The most southerly of these hotels is the San Marcos in the suburban town of Chandler, twenty-three miles southeast of Phoenix, on the Arizona and Eastern Railroad. The buildings are concrete and built at a cost of a quarter of a million of dollars. The main hotel building fronts a lawn-carpeted court, where roses, honeysuckles and other vines climb pergola pillars and gray walls. Adjoining the hotel on the west is a private park dotted with concrete bungalows. This park is noted throughout the state for the beauty of its shrubbery and flowers.

The hotel boasts that it provides its guests, besides the comforts of a perfectly appointed home, the pleasant social life and out-of-door sports of a high class country club. To this end, in addition to tennis courts and the like, it has an eighteen-hole grass-fairway golf links, and as well provides a fine stable of saddle horses owned and managed by Bill Huggett, the well-known southwestern guide.

The Castle Hot Springs Hotel is in the foothills of the Bradshaw Mountains, forty miles north of Phoenix, and is reached by auto stage from a junction of the Santa Fé, Prescott and Phoenix Railroad twenty-four miles away. The hotel includes three separate buildings and a number of cottages. On every hand there are trees, tall palms, beautiful walks and drives. The pool, which has a natural heat of from 115 to 122 degrees, may be enjoyed every day in the year. Tennis courts and golf links are also provided.

Both these hotels are closed in the summer. The notable tourist hotel of the northern part of the state is El Tovar, built by the Santa Fé Railroad on the rim of the Grand Canyon. Its base is limestone rock with a first story of solid logs. Its architecture follows in admirable proportion the Swiss chalet and the Norway villa. The house contains more than a hundred bedrooms, with outside porches and a roof garden, where wonderful views of the canyon can be obtained. The lobby, finished like a glorified hunter's lodge, is beautiful, comfortable and picturesque. As is the

case in all Harvey houses, the service is excellent. The hotel is open the year around. The altitude here is seven thousand feet, which insures a splendid summer climate but makes overcoats and wraps a requisite for winter. A good garage and amply equipped stables are maintained for the benefit of the guests.

The Ingleside Club, near Phoenix, might almost be classed as a winter tourist hotel, as a limited number of guests are accommodated there each winter. Consisting of a central building and a number of cottages, it is situated in the midst of a beautiful orange grove. North of the building lies the Arizona Canal, beyond that, on the desert, are golf links, and still farther to the north, about a mile away, rises picturesque Camelback Mountain. The Ingleside Club deserves the popularity it has always had with its patrons.

CHAPTER XXV

ARIZONA CITIES OF TODAY

TUCSON

ELSEWHERE in this volume we have seen how Tucson was first an Indian rancheria; next, under the care of Padre Garces, the environ of the mission of San Agustin, and still later the walled presidio of the Spaniards, when, with its little garrison of soldiers, it was the one place that could withstand the Apaches—the northern outpost of white civilization.

In the first decade of the nineteenth century, Tucson seems to have attained the apex of its prosperity under old Spanish rule. At this time it might have contained two or three thousand inhabitants, but by 1851, under the republic, it had dwindled to less than five hundred.

With the Gadsden Purchase in 1853, the Americans began to arrive, United States soldiers replaced the Mexican troopers, and Tucson took on a new prosperity.

In 1859 or '60 the first newspaper of the state, the weekly *Arizonian*, including press, type, title and good will, was brought from Tubac. Already there was a flour mill in the town, and American stores, saloons and shops followed steadily.

No one gives a better description of the Tucson of 1869 than does Capt. John G. Bourke. This is what he saw as he first approached the ancient pueblo:

"That fringe of emerald green in the 'bottom' is the barley land surrounding Tucson; those gently waving cottonwoods outline the shriveled course of the Santa Cruz; those trees with the dark, waxy-green foliage are the pomegranates behind Juan Fernandez's corral. There is the massive wall of the church of San Antonio now; we see streets and houses, singly or in clusters, buried in shade or unsheltered from the vertical glare of the most merciless of suns. Here are pigs staked out to wallow in congenial mire—that is one of the charming customs of the Spanish Southwest; and these—ah, yes, these are dogs, unchained and running amuck after the heels of the horses, another most charming custom of the country.

"Here are 'burros' browsing upon tin cans—still another institution of the country—and here are the hens and chickens, and the houses of mud, of one story, flat, cheerless and monotonous were it not for the crimson 'rastras' of chile which, like mediaeval banners, are flung to the outer wall. And women, young and old, wrapped up in 'rebosos' and 'tapalos,' which conceal all the countenance but the left eye; and men enfolded in cheap poll-parrotty blankets of cotton, busy in leaning against the door-posts and holding up the weight of 'sombreros' as large in diameter as cart wheels and surrounded by snakes of silver bullion, weighing almost as much as the wearers.

"The horses are moving rapidly down the narrow street without prick of spur. The wagons are creaking merrily, pulled by energetic mules whose efforts need not the urging of rifle-cracking whip in the hands of skillful drivers. It is only because the drivers are glad to get to Tucson that they explode the long, deadly blacksnakes, with which they can cut a welt out of the flank or brush a fly from the belly of any animal in their team. All the men are whistling or have broken out in glad carol. Each heart is gay, for we have at last reached Tucson, the commercial entrepôt of Arizona and the remoter Southwest-Tucson, the Mecca of the dragoon, the Naples of the desert, which one was to see and die; Tucson, whose alkali pits yielded water sweeter than Well of Zenzen, whose maidens were more charming, whose society was more hospitable, merchants more progressive, magazines better stocked, climate more dreamy, than any town from Santa Fé to Los Angeles; from Hermosillo, in Sonora, to the gloomy chasm of the Grand Canyon-with one exception only: its great rival, the thoroughly American town of Prescott, in the bosom of the pine forests, amid the granite crags of the foothills of the Mogollon."

Camp Lowell at that time was located in the eastern edge of the town, and the officers ate with the leading citizens at the "Shoo Fly" restaurant, where the captain said the flies wouldn't shoo worth a cent.

There were, of course, no railroads, pavements

there were none, street lamps were unheard of, drainage was not deemed necessary. Garbage was conveniently thrown in the street and Bourke says the age of the garbage piles was distinctly defined by geological strata. "In the lowest portion of all one could often find arrow-heads and stone axes, indicative of a pre-Columbian origin; superimposed conformably over these, as the geologists used to say, were skins of chile colorado, great pieces of rusty spurs, and other reliquiae of the 'Conquistadores,' while high above all stray cards, tomato cans, beer bottles and similar evidences of a higher and nobler civilization told just how long the Anglo-Saxon had called the territory his own."

The gambling saloons of Tucson of the '70s we have referred to elsewhere. We may only add that in '69 Bourke writes that whatever may be said against them, they were enterprising; while all the other houses still had earth treated with bullock's blood for flooring the big saloons provided lumber for the patrons to walk on.

In the late '60s or '70s the activities of the commercial princes of Tucson were comparable to those of the merchants of Venice, for to bring in goods in guarded mule trains from Guaymas, San Diego or Santa Fé was as formidable a task as for the Venetian to import his merchandise from Cipango or the islands of the Indies.

Instead of baseball the Spanish element at least had chicken fights, for "movies" they had theatricals from Mexico, but the one great social function was the *baile*. Again to quote Bourke,

who had been there: "The ballroom was one long apartment, with earthen floor, having around its sides low benches, and upon its walls a few cheap mirrors and half a dozen candles stuck to the adobe by melted tallow, a bit of moist clay, or else held in tin sconces, from which they emitted the sickliest light upon the heads and forms of the highly colored saints whose pictures were to be seen in the most eligible places.

"After the 'baile' was over, the rule was for the younger participants to take the music and march along the streets to the houses of the young ladies who had been prevented from attending, and there, under the window, or rather in front of the window—because all the houses were of one story, and a man could not get under the windows unless he crawled on hands and knees—pour forth their souls in a serenade." "La Paloma" was always sung, so was "La Golondrina." Here is one song that Bourke quotes, guitar accompaniment and all:

"No me mires con esos tus ojos,
(Fluke-fluky-fluke; plink, planky-plink)
Mas hermosos que el sol en el cielo,
(Plinky-plinky; plinky-plinky)
Que me miras de dicha y consuelo,
(Fluky, fluky-fluke; plink-plink)
Que me mata! que me mata! tu mirar.
(Plinky-plink, fluky-fluke; plinky-plink; fluke-fluke.)"

The houses of these pleasant early Spanish families were of adobe, but the courtesy of the host made them palaces, and the señorita's dress

of cotton was transformed to satin and lace by the air of the wearer, the rose in her hair and by the smile on her lips.

"'Ah! happy the eyes that gaze upon thee' was the form of salutation to friends who had been absent for a space—'Dichosos los ojos que ven a V,' 'Go thou with God,' was the gentle mode of saying farewell, to which the American guest would respond, as he shifted the revolvers on his hip and adjusted the quid of tobacco in his mouth: 'Wa-al, I reckon I'll git.'"

The town's weekly newspaper, The Arizonian, seems to have lasted until a short time after the establishment of the Citizen, October 15, 1870, by John Wasson. Wasson, according to Bourke, was an energetic individual who was a perpetual wonder to the easy-going Mexicans. He published editorials favoring the establishment of schools! He wanted the streets lighted at night; he even objected to a dead burro that had lain only for a day or two on the main street.

Valgame! What was the matter with the man? It would be removed in a week any way without all of this fuss. These Americanos! Always in a hurry as though the Devil were after them.

In March, 1877, Tucson—and Arizona—had its first daily paper in the *Bulletin*, four columns to the page, and had real telegraphic news—when the Government line to San Diego wasn't down.

After a few months of struggle the Bulletin died a natural death and was followed by the triweekly Star, edited by Louis C. Hughes, after-

wards governor of Arizona. The Star later was changed to a daily, and is still one of Tucson's leading papers, the evening daily being the Citizen.

Tucson was incorporated in 1872, with officers as follows: Mayor, Sidney R. DeLong; Aldermen, W. S. Oury, W. W. Williams, Samuel Hughes and Charles O. Brown.

The main thoroughfare of the town—Congress Street—was named after Brown's famous gambling saloon, Congress Hall. A number of streets were named after pioneers who had been killed by Apaches.

Never did Tucson give itself over to rejoicing more than it did on March 17, 1880, the day when the Southern Pacific, building from the west, reached the city. When the train pulled in everybody and his dog was waiting to receive it, to say nothing of the Sixth Cavalry band from Fort Lowell, which blew itself purple in the face with enthusiasm.

The address of welcome was made by the old pioneer, Col. W. S. Oury, and a silver spike from the Tough Nut mine was presented to President Crocker by Don Estavan Ochoa, one of Tucson's most distinguished citizens.

Tucson's second railroad was the Southern Pacific branch to Nogales. The celebration was held May 5, 1910, a holiday to the Mexicans, in honor of the day, in 1862, when General Zaragosa defeated the French at Puebla. They had a great time. Governor Sloan of Arizona, Governor Tor-

res of Sonora, and Governor Redo of Sinaloa were all guests of honor. There was a banquet, of course, and much speaking, and as the country editor says, "A good time was enjoyed by all."

The El Paso and Southwestern reached Tucson in November, 1912. By that time the coming of a railroad had grown to mean a holiday as much as did the Fourth of July, and everybody celebrated again.

Tucson is now a real city. It claims to be the metropolis of the state; so does Phoenix, but as Admiral Schley once aptly said, "There are honors enough for all." Certainly the old Pueblo has acquired a decidedly metropolitan style. She has paved her streets, erected handsome building structures, churches, schools, club houses, theaters, a fine public library and a hundred thousand dollar Y. M. C. A. In addition to all this there is the University of Arizona, with its really splendid buildings and beautiful campus, which the city tosses into the credit side of its balances just for good measure.

The last time we were in Tucson we looked for traces of the ancient Spanish town, but they are about all gone. Its residence streets, lined with comfortable looking bungalows, might be a part of Los Angeles; its best dwellings would be notable anywhere.

PHOENIX

The first settlement in the Salt River Valley was gathered about a flour mill built by W. D.

Hellings, the ruins of which may still be seen near Phoenix, just east of the State Hospital for the Insane. The machinery for the mill, upon which construction was started in 1869, was brought in on freight wagons from California. This settlement was first called Mill City, later East Phoenix.

Being on a stage road leading to both Wickenburg and Fort McDowell, settlers used to meet at the stage station and talk of the latest Apache depredation, of the exorbitant charges levied by the stage company, and how they wished somebody would start an ice plant so they could get some decent beer.

The saloon that may have induced the latter remarks was kept by Major McKinney, and close to that was a store conducted by Captain Hancock.

On October 20, 1870, feeling in their bones that a great city should be started in their neighborhood, the citizens met at the residence of a Mr. Moore and appointed a committee to select a site.

"Lord" Darrell Duppa, Moore and M. P. Griffin were the committee, and upon the site they recommended has been built the present city of Phoenix. The name was suggested by Duppa, who prophesied that here a flourishing civilization would spring up from the ashes of the departed aborigines.

"Lord" Darrell also named Tempe. Indeed, the people had a habit of calling on Duppa for most anything that demanded taste and erudition, for Duppa was a graduate of one of the English universities, speaking French, Spanish and Italian and quoting Latin and Greek. Also, in spite of bibulous habits and shabby clothes, he was credited with belonging to one of the great houses of England. Certainly he could spend money like a lord for the few days it took him to exhaust the check he used to receive regularly from London bankers. During the lean days that intervened until next check day his friends gladly provided food and drink in exchange for his company, for he was the beloved vagabond of early Phoenix. His acquaintances ever condoned his faults and even forgave him for writing poetry.

The new town was surveyed and mapped by Captain Hancock, and in the latter part of 1870 people showed their faith in Duppa's prophecy by beginning to buy lots. The first one sold was on the southwest corner of Washington and First Street, and was bought by Judge Berry, of Prescott, for \$104. The first house to be completed was a small adobe building on Washington, between Center and First Street, which was then known as Montezuma Street. Small as the house was it served not only as the office of the local justice of the peace, the probate judge, the treasurer, the recorder and the sheriff, but as a court room as well. Those were simple and easy times.

One establishment of undeniable importance to the pioneers was Mike's brewery, located on Washington Street, between First and Second.

In the spring of 1871 the county offices were moved to a small building constructed especially for them on South First Avenue, between Washington and Jefferson, where in September, 1872, the first school was held. The teacher was J. D. Daroche. Phoenix's second school building was located on North Central Avenue, in the present Central School block. Lumber for the floor was furnished by John Y. T. Smith, the first resident of the valley, who soon afterwards married the schoolmistress, Miss Nellie Shaver.

Phoenix's first postmaster was George E. Mowry.

The town was incorporated February 25, 1881, with John T. Alsap, mayor, and J. H. Burtis, T. W. Brown, J. M. Cotton and W. T. Smith, councilmen.

Although most of the residences, as well as many of the business houses, of Phoenix in the '80s were of adobe, it was really an attractive place. All the residence streets were lined with cottonwood trees, under which ran tiny irrigation ditches. There were not many lawns, but yards were filled with flowers, vines and fruit trees.

Where the city hall now is was a grove of cottonwoods, in whose shade in July an Indian or so could usually be seen burying his face in a water-melon—for no Georgia darkey ever had a finer appreciation of watermelon than the Redman.

Arizona has had many public benefactors. There were Generals Crook and Miles, who tamed the savage natives; there was Frederick H. Newell, who made the Roosevelt Dam possible; but the greatest of them all in a land where, in summer,

the mercury soars like prices in war time, was Samuel D. Lount, who in '79 or '80 started an ice factory in Phoenix, and to the consternation of the Indians and the amazement of the "Hassayamper," made perfectly clear, cold ice in July. It is a wonder Phoenix hasn't given him a statue.

In this connection it may be of interest to mention the means of refrigeration that existed in Arizona in an earlier day. To cool drinking water there was the olla, or Indian water jar. It was made of clay and, baked without a glaze, was quite porous. After being covered with several lavers of gunny sacking or other porous cloth, it would be hung in the shade, where the breeze, striking the wet and dripping side surfaces, would keep the water cool even on the hottest days. A desert refrigerator was sometimes made by utilizing the same principle. A frame with shelves would be covered with coarse cloth and water from a supply above would be made to trickle down just fast enough to keep the cloth thoroughly wet. Inside milk would keep cool and sweet when outside the thermometer stood at one hundred.

The greatest criticism that could be made against the physical aspect of early Phoenix was that the sidewalks, except on Washington Street, in front of the saloons, and a few other large business houses, were of native earth. This was all right during the 325 or so days when it didn't rain, but when it did—!

Well, we had a friend who was most attentive to a young lady. The lady was to sing at a "party" given by a local "society leader." The evening of the party it rained, and the sidewalks of the town were one continuous gooey, glutinous mass. A "hack" had recently been purchased by an enterprising liveryman and our friend took his lady to the party therein. So far everything was as lovely as the young lady's smile, or the young lady's gown.

The hack stopped in front of the social leader's house. There was no strip of red carpet running from the door to the curb. There was, however, a narrow path flanked by seas of mud. Between the hack and the path ran a small, tricky, irrigation ditch; in fair weather a delight to the eye—now no less than an insult. Young Lochinvar planted a foot on each side of the ditch, and held out a pair of muscular arms to the young lady.

"I'll lift you right over," he said pleasantly. The confidence he placed in his strong arms was not misplaced. He lifted! But, alas, his treacherous legs were standing in still more treacherous mud. His right foot started sliding north, the left one slid to the south. What happened to the young lady? Will the gentle reader kindly join the rain clouds in their weeping! The young man, directed by circumstances wholly beyond his control, laid the young lady gently downward, flat on her back, in the muddy water of the ditch.

Later that evening she sang, draped elegantly in a lace window curtain, but the coldness between the young man and the young woman, induced by the dampness, never thawed. Ever since 1887 Phoenix has had street railways. The first cars were drawn by mules, and if a housewife on Grand Avenue had company for dinner, the driver was ever ready to stop at Ed Eisle's bakery and get a loaf of bread or a dozen rolls for her.

The first newspaper to be published in Phoenix was the weekly Salt River Valley Herald, with Charles E. McClintock as editor. In 1879 the paper was changed to a semi-weekly, and soon after that to a daily. After McClintock's death, in 1881, N. A. Morford, who later was Arizona's secretary, owned and managed the paper until it was merged with the Republican in 1899.

The Arizona Gazette was started as a daily, Mondays excepted, in 1880, by H. H. and Charles C. McNeal, with W. O. O'Neill as editor. For many years after 1887 the paper was edited by John C. Dunbar, who, when writing editorials against political enemies, it is said, used to fill his ink well with vitriol and heat his pen red hot. As a democratic evening paper it is now owned by H. A. Tritle, son of ex-Governor Tritle, and Charles Akers, formerly secretary of the territory. It has Associated Press leased wire service.

The Arizona Republican began its career May 19, 1890, with Ed Gill as manager and Charles O. Zieganfuss, editor. After passing through several hands it was acquired by its present owners, Dwight B. Heard, one of Arizona's most prominent men, and his associates. It is progressive republican in politics, and, like the Gazette, has Asso-

ciated Press leased wire service. Through many of its years its editor-in-chief has been J. W. Spear, one of the ablest newspaper men of the Southwest. Several years ago Charles A. Stauffer, its energetic manager, did a most notable and commendable thing in deleting from the paper's columns all advertisements of patent medicines.

Phoenix has seen the rise and fall of many an ably edited and well printed magazine, including the *Graphic* and *The Call of the Desert*, but which were unable to receive financial support to long keep them going. The state's present magazine, *The Arizona*, has survived eight volumes and four numbers, under the able editorship of C. S. Scott, who has served on the staff of both the *Herald* and the *Republican*, and has been a decided asset to the commonwealth. The magazine devotes itself exclusively to things pertaining to the Southwest.

The first railroad to reach Phoenix was the Maricopa and Phoenix, whose name indicates its termini. It was completed in 1887, and when the engine came puffing and perspiring into Phoenix on a hot Fourth of July morning the town, in spite of the altitude of the mercury, had quite a celebration. The road is now a part of the Arizona Eastern system.

The Santa Fé, Prescott & Phoenix, building down from Ash Fork, arrived in Phoenix in March, 1895. There was a complication about the road's right of way into the town, but one morning in the gray of early dawn the trackmen laid the ties and rails from the city's edge down to the center of

population and had a train in before anybody was awake enough to object. Whatever the complication was, it was soon forgotten, and the city had a regular Tucson flood of oratory in welcoming it. Tom Fitch, Arizona's silver-tongued orator, who had helped to orate the Southern Pacific into Tucson, again burst forth into eloquence before an enthusiastic audience of Arizonans, who were ever ready to welcome a railroad into its midst and abuse it roundly when once it had got it there.

The modern city of Phoenix may be said to have had its beginnings when, on April 7, 1914, it adopted a commission form of government. W. A. Farish, a very capable civil engineer, was the first city manager. Phoenix now has many miles of paved streets, and its public buildings, including the state capitol, the Federal building, the Public Library, the Y. M. C. A., the Water Users' building and many handsome churches, would be a credit to any metropolis.

In a state noted for its excellent school buildings those of Phoenix are especially conspicuous. Over a million dollars has been spent to provide accommodations for its four thousand scholars.

A genial climate, which permits the growth of date and fan palms, of eucalyptus and peppers, many semi-tropical shrubs and plants, which keeps flowers blooming the winter through, gives wide latitude to local landscape gardeners. In consequence the city's many beautiful dwellings are enhanced by the wealth of greenery that surrounds them, making them a perpetual delight to the eye.

PRESCOTT

Modern Prescott is a long cry from the town of the pioneer days, of the log cabin and the flimsy shack when court was held at Fort Misery and fried venison was served with chile at the Juniper House. It is also a long cry from Mrs. Stephen's one-room school of sixty-five to the grammar and high school that now adorn Gurley Street and give prestige to the city.

However disastrous it may have been to individuals, perhaps the greatest good fortune that ever visited Prescott was the fire of July 14, 1900, that practically demolished the business section of the town surrounding the courthouse plaza, for from its ashes were built the modern business blocks that set the metropolitan stamp on the new city. The fire happened before the end of the gambling days, and while the ruins still smoked, the saloons of Whisky Row moved to the plaza, where a barber shop had been installed in the band stand, and here they established their faro layouts and roulette wheels under the blue sky. The loss occasioned by the fire ran above a million dollars.

The Prescott of today is in many respects a model little city. Its new courthouse, built of native granite, is handsome in design and splendidly constructed. Its banks have heavy deposit lists and occupy handsome buildings. Its business houses are second to none in the state, and the residence portion of the city is in every way worthy

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he business center. Prescott is situated in a utiful basin in the mountains, through which runs Granite Creek. On three sides mountain peaks, covered with pine, juniper and oak, rise high against the sky. The altitude of the town, about a mile above sea level, gives a climate that is never hot in summer, and at the same time has a winter just cold enough to be bracing.

In the *Journal Miner*, Prescott has a progressive, well-edited daily.

BISBEE

In Bisbee people live, move and have their being in terms of copper, which is as it should be, for Bisbee is the home of the Copper Queen, the Calumet and Arizona, and other copper mines that have helped to make the name of Arizona known throughout the world.

Aside from the buildings themselves most cities have only two dimensions, length and breadth. Bisbee adds a third, up and down. It is situated in a steep canyon which, before the white man came, was covered with oaks and vines. Then Jack Dunn discovered a copper mine, and as a shaft can not be easily moved, even to make a convenient site for a town, in 1880 the oak trees and the vines were pulled down, brick and mortar took their places, and Tombstone Canyon, in the Mule Pass Mountains, became Bisbee.

Yet, after all, we doubt if the citizens of the town would have its natural conditions different.

It makes for picturesqueness, those terraces up the steep slopes, and if one upon looking from his door yard can see nicely over the roof of his nearest neighbor, certainly there is nothing commonplace about it. At the bottom of the canyon is Main Street, the one continuous thoroughfare of the town, which, following the contour of the canyon, is almost as crooked as a snake with the colic. No one should object to that, however, for we all know that a curved line is more beautiful than a straight one.

One must not hastily conclude that because Bisbee is a mining camp that there is any atmosphere of instability about the town. Copper mines grow richer as they go down, and Bisbee people say that the town will be there till the Copper Queen and the C. & A. strike China.

And speaking of China, one of the unique traditions of Bisbee is that no member of the celestial kingdom may remain in town over night. Many of the early miners had lived in Nevada and California mining districts, where there had been anti-Chinese feeling, and they brought their prejudices with them. The rule is still supposed to prevail.

The year 1908 was an unfortunate one for the town. In the summer a tremendous flood carried thousands of tons of earth from the western hill-side, spilling it into the buildings at the bottom of the canyon. In the fall a half million dollar fire destroyed a portion of the business district, but as was the case with Prescott, the new buildings were better than the old. In fact, during the last dozen

years all of the leading cities of the state have acquired the kind of business houses that in the East one would scarcely find in cities of under fifty thousand inhabitants. Bisbee's standard in public buildings and business houses is high. It has a department store that is perhaps the finest establishment of its kind in the state. There are also the usual good schools and well-built churches. The Catholics are now erecting a church building that will cost in the neighborhood of \$75,000. And while we are talking in figures we might add that Bisbee put \$90,000 into its high school. Lowell, Warren and Don Luis are the principal suburbs of Bisbee. At Lowell is the "Junction" shaft of the "C. & A." Also located here are a bank and theater and several club houses.

Warren is the residential town of the district, and boasts of land that is either level or having a slope that may be termed "gentle" with residences surrounded by lawns, shrubbery and flowers. Just below Warren is the Country Club, the center of the social life of the district. Here are found golf links, tennis courts and a rifle range.

Bisbee has three daily newspapers, the Review, the Ore and the Square Dealer.

DOUGLAS

Douglas, the fourth city in size in the state, had its beginning in 1901, and in the seventeen years since then has accumulated a population estimated at ten thousand. It is entered by three railroads,

and is the home of the great copper smelters of the Copper Queen and the Calumet and Arizona. The smelters and the railroads have a combined payroll of about \$400,000 a month.

Built just north of the international line, to the south of the city lies Mexico, and on account of its location, Douglas is already one of the important gateways between the two republics.

In common with Arizona's other leading cities, Douglas has paved streets, trolley cars, a fine hotel and substantial business blocks and dwellings. Its banks are full of money and its people are prosperous. Almost any of its citizens will admit, if pressed hard enough, that Douglas is destined to become one of the great cities of the Southwest.

The city has two daily newspapers, The International and The Dispatch.

OTHER CITIES

The more important mining towns of the state not already mentioned individually include Globe, with about 7,000 people; Miami, 4,000; Clifton, 6,000; Morenci, 4,000; Metcalf, 3,000; Jerome, 2,500, and Clarkdale with about 1,000. The mining companies operating in these towns follow the most modern methods, and their smelters are among the best in the world.

Globe had its beginning in 1876, and its early days were enlivened by a lynching where two men, John Hawley and Lafayette Grime, were hanged on a big sycamore tree, conveniently located on the main street. The present town, like the others mentioned, has lost much of its pioneer aspect, and, like them, has many well-conducted and well-housed business enterprises. Besides being reached by the Arizona Eastern Railroad from Bowie, Globe is the eastern terminus of the scenic Apache Trail, an automobile highway running to Mesa and Phoenix. Its daily newspapers are the Arizona Record and the Globe Record.

Clifton, Morenci and Metcalf, in Greenlee County, are all close together and are connected by railroads. Clifton is the terminus of the Arizona and New Mexico Railroad, connecting with the Southern Pacific at Lordsberg, N. M.

Jerome, situated on a steep hill near the upper Verde, is the home of Senator Clark's rich copper mine, The United Verde, and is connected with the Santa Fé, Prescott & Phoenix by a private road. It also has a new road to Clarkdale in the Verde Valley, where it smelts its ore.

Kingman is the supply point on the Santa Fé for Chloride and other important mining towns in Mojave County.

Nogales is an important Mexican border town, being the northern terminus of the Southern Pacific de Mejico, running through Sonora and Sinaloa and tapping rich grazing, mining and agricultural country. The future of the town is undoubtedly rich with promise.

Yuma's day is at hand. For years the town has been associated only with slanderous tales concerning the behavior of its thermometers in July and August. Now with the completion of the Laguna irrigation system it glories in its hot summer days as much as it does in the balmy ones of winter. It is hot sunshine that makes Yuma cotton so good, that gives its farmers six crops of alfalfa a year, so Yuma's four thousand people with one voice say, "Let the sun shine."

Flagstaff, on the Santa Fé, at an altitude of 7,000 feet and surrounded by pines, specializes in cool summer days. Also, quite aside from its climatic excellence, it is the center of a very rich grazing country, and the beauty of the town, with the San Francisco peaks, snow-capped for much of the year, is undeniable. It is the home of one of the state's two normal schools, and of the famous Lowell Observatory.

Florence, one of the oldest towns in the state, is waiting for the day when the San Carlos dam will be built, when with plenty of water for the irrigating canals in the district, Florence will follow in the foosteps of Phoenix and Yuma. However, the farmers are raising some crops even now. It is a patriotic community—no doubt about that. In the spring of 1918, when there wasn't enough water for both the alfalfa men and the wheat raisers, the owners of the alfalfa fields let the grain farmers have enough of their water to mature their crops and help out Hoover.

Mesa, Tempe and Chandler are all suburban, agricultural towns in the Salt River Valley, surrounded on all sides by cotton, alfalfa and opulent farmers. Chandler, besides its tourist hotel, has

the finest golf links in the Southwest, covered thick with a grass sod, which in these war times gives nourishment to a large flock of sheep, in addition to recreation and recuperation to winter visitors.

CHAPTER XXVI

ARIZONA'S PART IN THE WORLD'S WAR

HE people of Arizona may well be proud of their state's record in the World's War. Not only has its achievements, according to the percentage of its population in comparison with other states, in Liberty loan subscriptions, in Y. M. C. A. donations and in Red Cross work, been conspicuous in the nation, but in addition it has contributed the largest percentage of soldiers and sailors to the war, per capita of male citizens, of any state in the Union.

The population of Arizona, according to the census of 1910, was 204,354; its population for 1917, as estimated by the Census Bureau, was 263,788. Deducting from that 105,551 Indians and aliens (mostly Mexicans), leaves a remainder of 158,237. Arizona's draft was on a supposed population—estimated in the provost marshal general's office—of 409,230.

At the beginning of the war the Arizona National Guard contributed over 1,000 men to the army, but when a new oath was required of the militiamen, only something over 600 re-enlisted, although most of them joined the service later.

In addition to this, over 800 of Arizona's young

men voluntarily enlisted in the navy and the marines. Statistics are not available, at this time, giving the number of commissioned officers that went into the service from the state, but in proportion to Arizona's population, the number is large. The estimate made by the state's adjutant general's office for army and navy enlistments and officers commissioned is 895.

Up to June 1, 1918, the number of men contributed by the different counties in the draft was as follows:

Cochise
Maricopa
Gila
Yavapai 825
Pima 736
Greenlee 625
Pinal 462
Coconino 427
Yuma 371
Mojave 320
Navajo 262
Santa Cruz 197
Apache 148
Not identified 17
Total8,355

These figures, which were later increased to 10,000, added to voluntary enlistments and commissioned officers, brings the total number of men going into service from Arizona as not far from twelve thousand out of an available population of 158,237 people.

With but few exceptions the men composing the Arizona contingent went not only willingly but eagerly, and the demonstrations, made at their departure, from different centers of population showed how sincerely the "folks at home" were ready to "back them up." Receptions, parades, picnics, banquets and balls were given in their honor; speeches wishing them Godspeed were made by officials from the governor down; flags were flown, bands played their most martial music, all to the end that honor might be shown those who gallantly stood ready to pledge their lives that the world might still be kept a fit place to live in.

The one conspicuous case of attempt at draft evasion in Arizona was made by Tom and John Powers, who not only did not register, but, in company with Tom Sissons, an ex-convict, shot to death Sheriff Frank McBride, under-Sheriff Mart R. Kempton, and Deputy Sheriff Kane Wootan, of Graham County, when they came to arrest them at the Powers home in Rattlesnake Canyon.

So outraged were the people of Arizona over the crime that special rewards were offered by both state and county for the apprehension of the criminals, and practically every peace officer in that section of the state, aided by hundreds of civilian possemen, hunted the men for weeks, when they were finally apprehended and taken into custody by United States soldiers a few miles below the Mexican line.

America entered the World's War April 6,

1917. That same month the obvious necessity for unity and cohesion in the many branches of work that must be undertaken in this state was met by the formation of the Arizona Council of Defense. The organization had its birth April 17, at a meeting of fifty prominent citizens of the state, who were called together by Governor Thomas E. Campbell. A day later the machinery of the Council was put in motion with Dwight B. Heard, chairman, and George H. Smally, secretary.

An executive committee of twelve was appointed, and fourteen sub-committees arranged for, officered by efficient and well-known citizens.

One of the first things undertaken by the Council, through its various committees, was the gathering of statistics concerning the state's resources and cataloguing the same.

The information thus obtained concerned crops, railroads, automobiles, auto trucks, mining production, labor conditions and other matters. Plans for the production and conservation of food supplies were entered into, the sub-committee with this in charge co-operating with the various county agents acting under the State Experimental Station. A committee on relief worked with a Red Cross committee to assist families, the heads of which were in military service; the committee on military training encouraged enlistments and aided in organizing forces for home defense, while other departments assisted in mobilizing boys for farm labor, in organizing Papago, Apache and Navajo labor, and secured a modification of the immigra-

tion law that would permit cotton growers to import pickers from Old Mexico.

These are but hints of the many activities undertaken by the Council and successfully carried through. When Governor Hunt again assumed the duties of governor on December 23, 1917, he became the official head of the Council of Defense, and ex-Governor Campbell took a place in the executive committee.

Early in 1918 the Council increased its zone of usefulness by organizing county councils to work in connection with the state organization. Some of the benefits of this extension work are expressed in a letter from President Wilson to the state chairman under date, March 13, 1918.

"Your state, in extending its national defense organization by the creation of community councils, is, in my opinion, making an advance of vital significance. It will, I believe, result, when thoroughly carried out, in welding the Nation together as no nation of great size has ever been welded before....."

A woman's committee of the Arizona division of the National Council of Defense was organized with Mrs. Pauline M. O'Neill as state chairman. This body also had county committees which did not so much plan to organize new work as to assist existing agencies.

The zeal displayed by the people of Arizona in the purchase of Liberty bonds and thrift stamps and in contributing to the Red Cross and kindred organizations was in no wise behind its other war activities. In this work men and women co-operated. In the largest cities there would be usually a man for chairman, but women took an active part in organizing the work, in receiving contributions and making house-to-house canvasses. In the smaller towns women would often have tables in the postoffice and other public places where every person who passed would be given a chance to contribute.

In the sale of thrift stamps, school children took a very active part. As an example of this, in the agricultural district of Chandler, where the school enrollment, including the children of Mexican laborers, was five hundred, in twenty-three days in May, 1918, the children bought with their own money \$1,155 worth of stamps. Most of this was earned by personal labor, the children hoeing weeds, milking cows, collecting and selling bottles, running errands and the like.

The sale of the first three issues of Liberty bonds in the state was as follows: First issue, \$6,703,400; second issue, \$12,092,450; third issue, \$11,382,200; fourth issue, \$15,222,200.

All of these amounts largely exceeded Arizona's quota.

The same spirit of service was shown in Arizona's response to the Red Cross drives. The first subscription reached \$131,490.84. Arizona's allotment for the second drive made in May, 1918, was \$200,000. Arizona "went over the top" with \$459,195.92. In the purchase of bonds and in making of subscriptions, all classes in Arizona seemed to join

with equal heartiness. Not only did the rich and well-to-do contribute, but railroad foremen, managers of stores and superintendents of mining companies would often report that every man in their employ had participated in the various drives.

In the manufacture of hospital dressings and various garments the Arizona Red Cross is said to be one of the best examples of efficiency in the entire country. No rural district was too isolated, no mining camp too remote, but what knitting needles were plied and sewing machines kept busy to serve the boys at the front and provide garments for the destitute in the battle-scarred regions across the Atlantic. Schoolboys as well as schoolgirls, from the grammar grades up, knitted.

Arizona had its chapter of the United States Boys' Working Reserve, and its leader, Lindley B. Orme, in May, 1918, reported: "I am proud to say that the boys of Arizona are responding with true patriotism for enrollment in the Boys' Working Reserve."

The nation-wide organization, known as the Four Minute Men, where speakers briefly address audiences in theaters and other places on patriotic subjects, had its organization in Arizona under the direction of George J. Stoneman, state chairman. Capable work was done not only in the cities and towns, but even in the most remote portions of the state forest supervisors, rangers and superintendents of Indian schools were enlisted either as speakers or as agencies for the distribution of patriotic literature.

The restrictions in food consumption required by war's necessities were accepted with willingness by Arizona's people. M. T. Grier, State Hotel Chairman, reports in April, 1918, that over 63,000 pounds of flour were saved in Arizona for the month of March, 1918, and that many of the public eating houses in the state were using no wheat at all. In May, 1918, bread cards were issued, limiting each person to six pounds of flour a month.

To increase Arizona's grains the committee on production of the Council of Defense made special efforts to increase the production of milo, kaffir and feterita, which were formerly used as forage grains, but under war necessities were found to make very good bread.

No chapter on Arizona's part in the world's war would be complete without mentioning what the University of Arizona has done. Since its inception the university has been a military school. All male students are required to take two years in military sciences and tactics. A majority of the graduates have taken four.

"Almost to a man," says President von Klein-Smid, "have the students of the university qualified and enlisted in Government service, some as officers and some as engineers and in ambulance corps." Forty of the boys were excused from school work for service to the Nation along agricultural lines.

Among the women, twenty-two graduates not only volunteered their services as members of the Red Cross, but completed a course in "first aid" training that would qualify them for service. In no wise behind the other activities of the university has been the work of its agricultural extension service, whose staff of workers include agricultural and live stock specialists, organizers of boys' and girls' agricultural clubs, and agents in each county, who advise farmers as to the best methods of crop production.

In the Arizona State Bureau of Mines Director Charles F. Willis compiled statistics concerning the mineral resources of the state, and, in different ways, tried to stimulate the production of not only such staples as copper, lead and zinc, but rarer minerals, including chromite, manganese, graphites, etc., needed in the war.

During the summer months of 1918 the faculty of the university remained on duty instructing two companies of selected men from the new National army in mechanic arts; and a Students' Army Training Corps was organized in the fall of 1918.

A special session of the Third State Legislature, to consider various measures made urgent by war conditions, was called by Governor Hunt to meet May 21, 1918. When the law-makers convened there were two empty seats in the House, those of Harold Baxter and C. C. Faires, both in military service abroad, and during the session Ernest Hall, of the Senate, also left for the front. Their vacant places were marked by the display of American and service flags.

Although factional politics for a time seemed to threaten the serious purpose of the session, when the test came, most of the legislators gave evidence of appreciating the grave responsibility that rested upon them, and bills, although some of them were perhaps impaired by a necessity for compromise, yet meeting the most pressing of the hour's necessities, were passed.

Chief among these enactments was a bill providing for the formation of a legally authorized and empowered council of defense to take the place of the emergency body created by Governor Campbell. Under this law the council was to consist of the governor, acting as chairman, and fourteen members, one to be appointed by the governor from each of the fourteen counties in the state, each appointee to receive ratification from the board of supervisors acting in his county. Among other functions the council was given power to initiate all necessary measures to coordinate the state's war activities with those of the national Government, to supervise the solicitation of funds for patriotic purposes, and to enlist the co-operation of officials and private citizens in carrying on war work within the state. It was also given wide investigational powers.

A popular enactment was one granting citizens of the state in military service, no matter where they might be, the right to vote, the ballots after being filled out by the soldiers to be mailed back to the proper official in Arizona.

Other bills passed include the following: Defining the crime of sabotage and fixing the penalty; prohibiting the giving of aid or employment to draft evaders or deserters; an Americanization

bill providing for night schools for the instruction, in the English language and in American ideals, of non-speaking aliens; a bill granting to the members of the National Guard credit for the time engaged by them in the federal service; an antivagabondage bill, and a bill making it a special crime to give false affidavits to secure an improper classification for registration under the selective draft.

After all, if there were some heated discussions indulged in during the session, the cause of it need not necessarily be laid entirely to politics. It was Arizona in June, and during the time the solons sat, under the droning electric fans, wiping the legislative brow, and, sans coats, pulling apart the collars of the senatorial toga, the mercury, even in the louver-sided instrument box on top of the weather bureau office, registered 1133-5, breaking the record for eight years. When on June 19th the session adjourned, with one accord all legislators living in the cool, mountainous parts of the state stayed not on the order of going, nor tarried by the wayside, but with one accord, suitcases in hands and with nostrils already sniffing highland breezes, made a bee-line for the railroad station.

The State Council of Defense, as provided for under the new law, completed its organization in July, 1918, with an executive committee as follows:

Gov. George W. P. Hunt, Phoenix, chairman; C. E. Addams, vice-chairman, Ray, Pinal County; Mrs. Theodora Marsh, Nogales; W. D. Claypool, Claypool, Gila County; Homer R. Wood, Prescott; Dwight B. Heard, Phoenix; D. T. MacDougal, Tucson.

The first native Arizonan to give up his life for his country in the World War in France was Matthew R. Rivers, a Pima Indian, who had been educated at the Sherman Institute, California. Like many other Arizona Indians, he had shown his patriotism by early enlisting in the army. However, with most of the Indians of the state the navy was the favorite branch of service, although many of them had lived on the desert all their lives and had never seen the ocean until they enlisted.

The armistice which brought the World's War to an end was signed on the private railroad train of Marshal Foch at Rethondes, France, at five o'clock on the morning of November 11, 1918; in Arizona, on account of the difference in time, it was ten o'clock P. M., November 10th.

The news for which all were waiting with such eagerness reached our cities soon after midnight, when bells were rung and whistles blown to express the joy of those who had stayed up to wait the tidings, as well as to apprise the minority who had gone to bed that peace had come at last.

As was the case with much of America, Arizona was in the midst of a visitation of the ubiquitous "Spanish" influenza. Churches, schools and theaters had been closed and public meetings forbidden since early in October, and, as it turned out, the ban was to remain in force until nearly the end of the year; nevertheless, the enthusiasm of the

people was too great to be refused communal and gregarious expression, even by quarantine regulations, and on the morning of the 11th the streets of towns and cities were soon filled with young and old, radiant of face and with shining eyes, who made the air vocal with enthusiastic expressions of joy and relief. In the hour the austere forgot their dignity and the most incorrigible pessimists played the part of Sunny Jim.

Those whose near and dear were in their country's service, said in varying words but with common thought, "The boys are coming back!" Those whose beloved had paid the supreme price, smiled through tears with the bravery of sacrifice to a high and noble cause, and in their bereaved hearts had the consolation of knowing that those who had laid down their lives had not "died in vain." Women cried, "We've won! We've won!" and all the ages of man, from schoolboy to "slippered pantaloon," chortled in common and commendable atavism, in all the keys of human expression, "B'gee, we've licked 'em!"

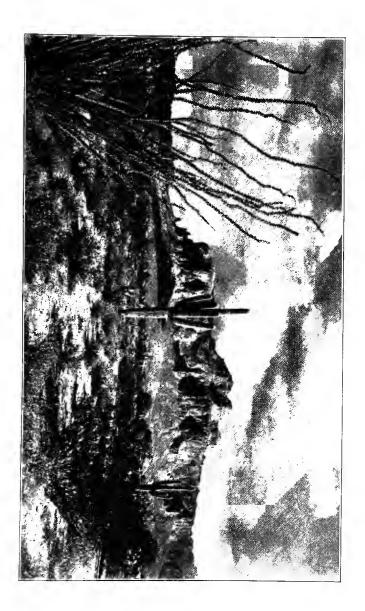
CHAPTER XXVII

ARIZONA PLANT LIFE

In collaboration with J. J. Thornber, A. M.

THERE are places in Arizona, when the sun is shining where a man may go coatless with comfort in mid-winter. There are other places in the state where the camper-out, if he would keep the shivers from his back, must have an evening fire throughout the entire summer. These extremes in temperature are caused by differences in altitude, and as in the lowest altitudes the rainfall is not over five inches for the entire year, and in places in the mountains it is five or six times that amount, the variations in plant life are even more striking than the climatic differences.

Topographically, Arizona falls naturally into three distinct physical divisions. The southwestern part of the state is, for the most part, a flat desert, out of which gaunt mountains rise, whose rocky surfaces, save where cacti or hardy shrubs find footing in fissures in the sandstone or lava rock, are devoid of vegetation. In the northern part of the state there is a plateau, averaging in height about a mile above sea level, with mountains here and there, whose snow-capped peaks reach an ele-



vation of twelve thousand feet. Between these two extremes comes the foothill country.

Each of these divisions has its own particular flora, and included among its trees, shrubs, grasses, flowers and even ferns are nearly 3,000 species of plants, representing almost every plant family in our large country. Some of these have been recognized quickly as worthy of places in our yards, gardens and conservatories, and in time many others, through merit, are sure to find their way into cultivation to become a help to mankind. There is almost no season of the year when one can not find flowers somewhere in Arizona.

On the low, desert floor to the south, in order to maintain existence, plant life must ever protect itself both against the hot, dry, scorching air that would wring from it the little water it obtains from the infrequent rains, and animals that in a country of sparse vegetation seem ready to consume almost anything that grows.

The methods the different plants take in their struggle for existence are full of interest. Some of the cacti store water in their thick, stalky trunks or fleshy stems, others in bulbous roots. Several of the shrubs have varnished leaves, which greatly lessens evaporation, and on nearly all of the trees there is a greatly reduced leaf surface.

The protection the desert plant has against animals is equally efficacious, though botanists tell us that desert conditions are largely responsible for their characteristic growth. Examine almost anything that grows on the desert, whether it be shrub,

cactus or tree, and you will find that it bristles with thorns or spikes that say to the marauder, "Beware! Disturb me at your peril!"

Perhaps the most characteristic growth to be found on the desert floor is the creosote bush, though it is found to some extent on mesas and in the foothills. It stands any amount of heat, and covers much of the country from the mountains, south and west, beyond the borders of the state. The bush is about five feet in height, and its small, varnished, glossy leaves feel sticky to the touch. Always attractive in appearance, it is at its best in March and April, when it is covered with little yellow flowers, followed later by white, fluffy seed balls.

Except after winter or early spring rains, the ground between the bushes is wholly bare, the brown, hard soil looking sterile enough, yet when the seeds which lie within its hard crust are quickened by rains, myriads of flowers and grasses spring into life to bloom and seed before the scorching sun of summer shall end the short cycle of their existence.

With seasonable rains in the winter and spring the barren foothills and semi-desert areas of southern and western Arizona are carpeted with a wealth of golden poppies, purple phacelias, blue covenas and larkspurs, orange and yellow mariposa lilies and bright flowered gaillardias and paintbrushes. Usually these form a mosaic broken here and there, though in more favorable locations they grow in vast beds, where the poppies and mariposa lilies give their colors of gold and orange to the landscape for miles along the foothills. Other flowers less in evidence at this season are tidy tips, cream cups, anemones, desert stars, daisies, borages, fairy dusters, gilias, wild flax, evening primroses and desert holly. There are more than two hundred of these early blooming flowers, most of them small annuals, growing and flourishing during the cool, moist weather of late winter and spring.

All through the desert country and foothills, up to three thousand feet, among characteristic desert growths rises the giant cactus, which the Arizonan calls the "suhuaro" and the botanist the "Cereus giganteus." Nothing within the borders of Arizona is more picturesque or striking than these sentinels of the plains, which rear their fluted columns to a height of from thirty to fifty feet. Their few branches, thick and sturdy, rise candelabra-like close along the sides of the parent stalk, and, like it, are protected with little rosettes of thorns. During May and June handsome white, wax-like flowers form at its crown, and from these grow oval fruits with crimson flesh and black seeds. great tree of a cactus is unique among plants, and its blossom was well chosen as the State Flower of Arizona. Woodpeckers make holes high up on the trunks of the suhuaro for nests, afterwards these holes are often used by the tiny elf owl.

To the casual observer the bisnaga, or barrel cactus (*Echinocactus Wislizeni*), is sometimes mistaken for a young suhuaro. Even a superficial

examination, however, discloses many striking differences, for, while with the suhuaro the thorns are straight, in the bisnaga they are curved like a fish hook. They have no arms, and are seldom more than four or five feet in height.

The most cruel and menacing of all the desert growths are varieties of *Opuntia*, commonly known as the cholla. The most malignant of several similar varieties is the *Opuntia fulgida*, which grows from four to six feet in height, and is a mass of spreading, contorted branches covered with cruel thorns. Brush them ever so slightly with hand or clothing and the little, short terminal branches break at their brittle, cylindrical joints, when the thorns seem to fairly eat into the flesh. So readily will these branches attach themselves to the unfortunate man or beast who touches them that there are many who believe that they jump at one.

But while the cholla shows its fangs to the stranger, it gives protection to its friends. Lizards are ever ready to take refuge among loose piles of dropped joints, several varieties of birds nest among its spiny branches, and desert rats will use the thorny branches as the outer wall of a fortress around their nest as a protection against those who would molest them. The cholla's many plant cousins have more or less its same characteristics, varying in height from small shrubs to trees higher than one's head.

The well-known prickly pear, or nopal, is also an *Opuntia*, and, as with most cacti, its blossom matures into a fruit, of which more will be said later.

Both prickly pears and chollas are forage plants, and if the thorns are burned off, which can be done easily, the rather succulent branches are eaten with avidity by stock. Indeed, a goat, if hungry, will eat cholla branches, thorns and all, with apparent relish. When other food is scarce a wise, old, range cow will sometimes be seen dining on prickly pear. With one end of a joint in her mouth she will beat a branch against the ground until, when the thorns are somewhat subdued, she will calmly swallow it.

Of the smaller varieties of cacti there is none more interesting than the pincushion (Mamillaria Grahami). It grows in a tiny ball, often not much larger than a door knob, and is covered with little stars of spines, from which a tiny fish hook rises in the center. Its fruit is a bright, scarlet berry that grows out like a very tiny baby's finger.

Those mentioned are, of course, but hints of the hundred or more varieties of cacti which grow in Arizona. Their flowers are among the most gorgeous on the desert, but they are not "bouquet flowers," and woe is to him who would try to pick them. Though cactus flowers last but a day, they can easily match every shade of the rainbow with their colors of pure white, yellow, orange, pink, red, magenta, purple and maroon, to say nothing of the indeterminate tints. Arizona's finest flower is the rare night-blooming cereus. This wonderful blossom is eight or nine inches long and bell-shaped, with numerous cream white petals and stamens, often tinged with pink and brown.

The ocotillo (Fouquiera splendens), which is usually found in the foothills, though not scientifically a cactus, is often classed with them. It is sometimes called the devil's coachwhip, and grows in groups of whip-like stalks five to fifteen feet or more in height, and, of course, is armed with the inevitable thorn. In the spring the ends of these whips, which are occasionally clothed with soft green leaves, bear hundreds of crimson flowers, a striking and wonderful flame of color, against a desert background.

The most prominent trees of the desert are the mesquite, the ironwood and the palo verde. These trees grow most thriftily when found along washes or in depressions in the desert, where, by reason of drainage, they are favorably located to collect moisture. Although the palo verde, especially, is found in sterile soil, the ironwood and mesquite reach their best development in rich, alluvial deposits.

The mesquite, the most valuable to man of all the desert trees, is a low-growing, spreading tree of the Mimosa family, with finely divided leaves and many small leaflets. Bees make beautiful white honey from its masses of cream-yellow flowers, which appear in May and June. Later beans are formed, which make valuable stock food. Its wood makes excellent fence posts and fuel. From a distance old mesquite trees look not unlike old apple trees.

The ironwood (Olneya tesota), which likes the desert and low altitudes, is a member of the pea

or clover family, and late in the spring has a pealike, lavender-colored flower, followed by a pod with several seeds. The wood is so heavy that it will sink in water. The Pima and Papago Indians not only made spades of it, but a mallet or war club, with which they would slip into Apache camps at night and deftly brain their ancient enemies.

The palo verde is beloved by all who know the desert and have an appreciation of its picturesqueness and beauty. Though for much of the year this unique tree is wholly devoid of the small leaves it bears for a part of the summer, its numerous branches and twigs spreading gracefully from a short trunk are of a soft delicate shade of green, and even then form a picture full of charm. It is in May, however, that the palo verde becomes truly splendid, for then the entire top may be a mass of yellow flowers that are fairly dazzling.

In the river bottoms—such as those of the Salt, Gila and Colorado—in the desert country one finds the willow and the cottonwood, the latter being the noblest tree that grows in the Southwest, often attaining a height of ninety feet, with a widespreading canopy of branches and deep green leaves.

The arrow weed (*Pluchca borealis*) and the "bata mote" (*Baccharis glutinosa*) inhabit river banks and flood plains in the hot lowlands. The Indians make excellent arrows from them.

The desert pampas (Baccharis sarathroides) is an interesting desert shrub growing in the river valleys and arid mesas in southern Arizona. Its slender, angular, evergreen twigs are almost destitute of leaves, but in the autumn it produces masses of white, cottony down that make it very attractive.

A bush that never fails to attract the attention of the traveler is the crucifixion thorn (Holacantha Emoryi). It usually grows to a height of from four to ten feet. Its bark is smooth and green; there is no leaf nor rosette of thorns, but every twig ends in a hard, sharp spiny point. As Van Dyke says, "The shrub seems created for no other purpose than the glorification of the thorn as a thorn." It is found on such desert areas as those surrounding the Salt River valley.

The desert flowers which have been noted mostly disappear with the dry, hot fore-summer, and the landscape is again desolate save for the scattered shrubs and low trees, whose foliage is yellowish, dull brownish or sage green. Late in July or August the ever-welcome summer showers come; these soften and moisten the air and bring life anew to the parched mesas and foothills, and another group of desert flowers spring as if by magic into existence, for now the weather is warm and growth is rapid. These are represented by the showy Mexican poppies or golden caltrops, blue, white and scarlet morning-glories, purple fouro'clocks, fragrant yellow-flowered martinos or devil's claws, besides asters, lemon weeds, zinnias, marigolds, verbenas and cassias. Among cacti, bisnagas or fish hook cacti, wear crowns of golden or orange-red blossoms and large chollas, glistening with white spines, are very attractive. Nopals or prickly pears are equally showy at this season with their abundance of deep red or magenta fruits. Creosote bushes, mesquites and acacias often bloom profusely for a second time, as if one splendid flowering season was not enough.

In journeying from the lowlands to the highlands of Arizona, as one does, for instance, when making the trip from Phoenix to Prescott, even the wonderful scenery that on all sides commands admiration scarely holds the observer in more fascinated attention than does the ever-changing panorama of plant life.

As one gets into the foothills ironwood trees, creosote bushes and salt bushes are slowly left behind. Mesquites are still seen and acacias, cat'sclaw and brittle bushes, all of which flower in April or May. Chollas, too, have disappeared, and as the suhuaros grow fewer in number and finally no longer show against the rocky hillsides, vuccas take their place, and if it be early summer some of them will be adorned with tall, white, spire-like panicles of most beautiful flowers. A few miles farther and on a steep slope there may be seen a clump of agaves, similar to the century plant of the conservatory, only smaller, and from the center of the bayonet-like cluster of leaves at the ground rises a straight stalk ten feet or so, with vellow-reddish branches coming out near the top and terminating in big yellow flowers—the whole effect being that of a great candelabra.

At an altitude of about four thousand feet, scrub oaks begin to appear and soon cover the everrising hills. If you pass through a wash where trickling water runs, hackberry or ash trees may be observed, or perhaps a great Arizona sycamore, which is a particularly striking looking tree with its large, sharply lobed leaves and its white bark, which has the habit of renewing itself annually.

Finally one comes to the bottom of a tremendous hill, three, four or even five miles in length, and after a long climb upwards through scrub oaks, with occasional glimpses of juniper trees, he comes to the top, and "Presto! Change!" He feels quite like Jack of the Bean-stalk must have felt when he poked his head up through the floor of the Giant's country.

Everything suggestive of the desert has now been left behind. Even in mid-summer instead of scorching heat, cool breezes fan the cheek, and if the summer rains have begun, the ground will be covered with grasses and shrubs, perhaps flowers, which are distinct from and also more showy than those of the lower mesas and foothills. These will include verbenas, painted cups, lupines, yellow peas and wild beans, with Indian paintbrushes on the hillsides, and all about one rise great pines, pointing like cathedral spires to the sky.

To any one interested in the out-of-doors in general and trees in particular, there are many things about the Arizona conifers worth noticing. One may follow automobile roads for hundreds of miles and be surrounded with pines, junipers or

firs all the time. Ten varieties, altogether, there are of the pines, and the most widely distributed of them all in the state is the western yellow pine, the *Pinus scopulorum*, which is to say, "The Pineamong-the-rocks." Its majestic size is surpassed by few other pines, as it rises to a height of 125 to 140 feet, with a practically clear trunk of from forty to sixty feet. It makes excellent lumber, being soft and easy to work, and is suitable for both interior and exterior purposes. Remarkable as it may seem to the stranger in the Southwest, the largest yellow pine forest in North America occurs in Arizona.

The Apache pine is interesting because of its rareness, being found but seldom in America outside of the southeastern part of this state. It grows fifty feet or more in height, with an open, round-topped crown. It is known by its long needles.

The Chihuahua pine is also found in the mountains in southeastern Arizona, and extends down into Mexico. It is smaller than the Apache pine and, compared with other associated pines, its foliage appears thin and pale.

Three nut pines grow in Arizona—the Mexican piñon, the Pinus edulis and the single leaf pine. All have the short needles, characteristic of the piñon. They are much smaller than the pine and bear in their cones the nuts that are valued almost as much by the Americans as they are by the Mexicans and Indians.

Two of the most beautiful of all the conifers of

the mountain districts of Arizona are the Englemann spruce and the blue spruce, which are usually found at an altitude of over seven thousand feet. They are about as tall as the *Pinus scopulorum*, and with their blue-green foliage and draped as they sometimes are with gray-green lichens resembling Spanish moss, their appearance, towering against the background of a canyon wall, is nothing less than majestic.

Arizona has an unusual and beautiful tree in the cork fir, which, growing at an altitude of 8,500 feet or higher, is recognized by light-colored, silvery bark, which is cork-like and peels off in large, thin layers. Its usual height is from 100 to 120 feet, with light green foliage. It is common in the forests about the San Francisco Mountains, in the White Mountains and occasionally on the Graham and Santa Catalina Mountains.

The silver fir (Abies concolor), with fine silvery or blue-green foliage, is somewhat similar, but does not have the cork-like bark. This tree is common throughout the mountains of Arizona, at an altitude of 7.500 to 8.000 feet.

There are several varieties of junipers found in the mountain regions. They are low-growing trees with rounded tops and usually with wide-spreading branches. They have thick, scale-like leaves and interesting, compact little berries, which are really made over cones. The fragrant wood is used for a variety of things, from posts to pencils, and burns without the pitchy smoke of the pines. Juniper, by the way, is but another name for cedar, of which there are at least four varieties in the state. The Arizona cypress (Cupressus arizonica) is a tree that has been transplanted from its mountain home, to make an excellent ornamental tree for the lawn in the lower valleys. Its leaves are scale-like—small, silvery green, and it is readily distinguished from the junipers, in that it is not so wide spreading and by the fact that the fruits are compact, small, thick-scaled cones, and not at all "berries."

No tree in the high mountain country is more beautiful than the quaking aspen, which is rarely seen lower than seven thousand feet. The aspens are found in little groves on mountain slopes, where their straight white trunks and their leaves, ever trembling in the cool, pure air, present a picture of rare loveliness.

Maple trees find a congenial home in high, shadowy mountain canyons, where snows lie in winter and brooks trickle in summer. Also here and on pine and spruce-covered slopes, where the summer air is moist from frequent thunder showers, are to be found throughout the summer and autumn veritable flower beds, where grow painted cups, beardtongues, gilias or skyrockets, wild fuchsias, bouvardias and a lobelia, all of which will have bright scarlet or red flowers, also golden and cardinal columbines, tall, blue larkspurs, lupines and irises, evening primroses, cardinal and yellow monkey flowers, orange and red-flowered milkweeds, golden glow and occasional patches of Parry's vellow lily, besides wild roses, honeysuckles and spiræas and a host of smaller flowers,

like geraniums, primroses, shooting stars, violets, wild peas and vetches, bluebells, buttercups, false Solomon's seal, also lady slippers and numerous other orchids.

Among the earliest of the mountain flowers are the sego lilies, with blossoms of pale pink, blending into lavender. The glory of the autumn is the goldenrod.

To return to our trees: In conclusion let us say that in Arizona the pines, firs and spruces are represented by about fifteen species; in addition to these there are two to several species each of junipers, cypresses, alders, oaks, walnuts, willows, cottonwoods or poplars, ash trees, maples, wild cherries, ironwoods, mesquites, palo verdes and elderberries. The birch, hackberry, mulberry, soapberry, sycamore, cat's-claw, locust, redbud, mountain mahogany, mountain ash, thorn, madrone and desert willow are each represented by one species.

Wild grapes are common at an altitude of a half mile or more in ravines, where water runs in times of rain, and in high, moist specially favored spots blackberry, gooseberry and raspberry bushes may be found.

The flora of Arizona is also rich in grasses. Though widely distributed over the state, grasses are most abundant between the altitudes of 3,000 and 8,000 feet, where the great bunch grass areas occur. Grama and mesquite are the most valuable of our grasses, and are noted the world over for their grazing value. Nearly all the species of these

grasses growing in our country are found in Arizona. Though superior at all times to other grasses for grazing, grama grasses have the property of curing naturally on the ranges during the long, dry falls, and hence are invaluable for winter grazing. Other important groups are the bluestem grasses, tripleawn grasses, drop-seed grasses, mountain bunch grasses and wheat grasses, the two latter growing mostly at high altitudes. Sacaton, galleta or tubosa and desert cracker grass are other interesting, though less valuable grasses. The six-weeks grasses are small annuals, growing on the desert areas and completing their growth within a period of from four to six weeks during the summer rainy period.

To those who in their minds have associated Arizona only with cacti, sagebrush or creosote bushes, it will come as a surprise to learn that within the state there are more than fifty kinds of ferns, including water ferns growing in ponds. desert ferns inhabiting the most arid, uninviting rocky foothills, and ferns frequenting cool, moist, shady canyons of our high mountains. The finest as well as the largest, of our ferns is the great chain fern (Woodwardia radicans), which grows to a height of five to seven feet, with fronds three to four feet long. It has a short, trunk-like caudex, which often gives it the appearance of a tree fern. The gold and silver fern grows but a few inches high in the shade of rocks in low canyons in the early spring, and the delicate southern maidenhair fern is one of the finest of the group.

OLD MADAM NATURE'S CAFETERIA CATERING ESPECIALLY TO ABORIGINES

To the white man only a few of the trees, bushes and plants we have been considering would be regarded as productive of food, but to the aborigine, whose garden provided him at best with only squash, corn and beans, demands for a more varied vegetable diet, and for fruit, if possible, stimulated him to experiment with many unpromising growths.

Pine nuts, bellotas, walnuts and wild grapes, wild currants, gooseberries, strawberries and raspberries were naturally all eaten with avidity by the highland Indian, nevertheless they were given decidedly a second place to the agave. About the first of July the stalk that later would have borne its wealth of flowers, is very tender, juicy and sweet, its heart resembling the sugarcane. From it the noble braves made "tizwin," a firewater that when imbibed by the redman turned him into something akin to a homicidal maniac.

The heart and bases of the under leaves were roasted in pits dug in the ground, the heat being supplied by hot stones. After being left in these primitive ovens for two days the stalks would be reduced to a pulpy, sweetish, glutinous mass, not at all unpalatable.

The southwestern Indian was ever more cleanly than the northern members of his race. One reason probably was that when the thermometer stands above one hundred, bathing becomes a pleasurable exercise. Another reason may have been the familiarity the redman had with the properties of the amole (of the Yucca family), whose roots make a splendid substitute for soap, as well as an excellent hair invigorator.

But to return to our bill of fare: There is a wild parsnip that grows on the higher levels in Arizona that in the '50s the Pai-ute women used to collect in large quantities in the early months of the year. It was dried, ground and stored for future use.

The fruits of many different kinds of cacti were highly prized by the Indians for food. The fruit of the prickly pear was eaten by the redmen both raw and cooked, and Mexican and American pioneers alike made excellent jelly from it. Berries of Arizona's several varieties of manzanito also make delicious jelly.

Preserves, jams and dried sweet meats were made from the fruit of the suhuaro, and specially prized by the Pimas and Papagos. In the early days the Pimas, once a year, would allow a portion of the syrup made from the suhuaro fruit to ferment, and on the liquor thus obtained would go on a debauch which would usually last for two days, after which they would return to their usual life of sobriety for another twelve months.

Mesquite beans were a staple with the Pimas, Papagos, Yumas and other desert Indians. The beans were dried and ground, and the meal thus obtained would be used for making gruel and bread. A meal was also made from acorns.

Grass seeds were carefully collected by the

Apache women. The seeds would be cleaned of hulls, ground, stored in pottery jars and used as . meal. Sometimes the unground seed would be used for porridge.

Perhaps the most valuable of the desert growths, not only to the Indian, but in later days to the white traveler as well, was the bisnaga, whose interior is a mass of white pulp, full of moisture. By cutting off the top of the plant and mashing the pulp, enough watery juices may be obtained to sustain life

Both Mexicans and Americans cut the pulp into cubes, and by boiling it in sugar and other materials make a delicious sweetmeat out of it. An enterprising Phoenix confectioner has made a national reputation by crystallizing and converting it into a delicacy de luxe.

The Mojave Indians, after scraping out the interior of the bisnaga, used the shell for a cooking vessel. They would fill it with water and boil a desert rat or rabbit therein with the use of hot stones.

Did the aborigines in Arizona fare well gastronomically? Except in times of war we may assume with reasonable safety that the thrifty ones at least did. Do you think you could get along if invited to dine with a cliffdweller's family, in Montezuma's Castle, for instance, and sat down to something like this: Grass seed puree
Quail broiled on the spit
Roasted Agave ends
Stewed Antelope
Beans Squash

Corn cakes
Dried prickly pears
Pine nuts

Naturally it is not to be expected that Mrs. Cliff-dweller arranged her menu in just this order, but as Mr. Cliffdweller sat squatting before his pottery bowl eating elegantly with his fingers, assisted by a piece of corn cake for a scoop, he did pretty well; so did his descendants, the Hopis, before the white men exterminated the deer and antelope; so did the Indians of the San Pedro valley and the White Mountains. Remember how they fed Fray Marcos on quail and other delicacies.

All of the material joys of living are not with him who sells soap or nails, or keeps books all day and goes home to corn beef and cabbage and to sleep, not under the starry vault of heaven, but in a stuffy nine by ten bedroom, and imagines, therefore. that he is civilized.

CHAPTER XXVIII

SOME ARIZONA BEASTS AND BIRDS

PON first view the wilds of Arizona seem destitute enough of animal life. However, if one motors in the desert country, not too far from water, say in the Gila Valley, or along foothill creeks like the Tonto or East Verde, he will not go far without seeing a cottontail skurry across the road ahead of him, a covey of quail fly by from somewhere near at hand, or a long-legged jack rabbit start up from behind a clump of sagebrush or creosote bush and, with prodigious bounds, disappear into the distance.

If your motor trip be confined to the desert, and it is summer, it will be the brownish ground squirrel that will be observed the oftenest. He is a spry little chap, about the size of a chipmunk, and always seems to be in the act of getting back to his hole as fast as legs can carry him.

In the mountains what you will be most apt to see will be the gray squirrel of the rocks, the chipmunk or, on an upland plain, colonies of fat prairie dogs.

While the habitat of the ground squirrel is confined to the desert and the prairie dogs to the high plateaus, both the cottontail and the jack rabbit are found throughout the entire state, in the cool

mountains as well as the hot valleys of the south. The one part these rabbits seem to play in nature's scheme of things is to provide fresh meat for the carnivora of their neighborhood.

The coyote is particularly fond of rabbits, and, though he seldom, if ever, gets a jack on a straight-away run, he will often pick up a cottontail as it skurries from bush to bush. El Coyote is not finical about his meals. When he can't get a rabbit he will take almost anything in the way of meat he can find, savory or unsavory, or, if nothing better may be found on the menu, will make out with a piece of dried prickly pear fruit. John Van Dyke well calls him the hobo of the desert, for from his seedy, moth-eaten aspect, as well as from his impudent manners and vagrant craftiness, he well deserves the name.

His yelp is distinctive as everything else concerning him. If you are camping out on the desert or foothill, and there has been bacon or beef for supper, you may be sure El Coyote picked up the scent, even though a half mile away, by the time you had your frying pan fairly over the fire, and as soon as it is dark he, with perhaps a crony, will slip just outside the zone of your fire light, then suddenly your ears will be smitten with a yipping, eerie howl—a "Yip-yip-yip-e-ow-i-i-i!!!" which rises to a shrill falsetto that is little short of appalling the first time one hears it. Two coyotes can sound like a score, and, oh, the nerve-racking dolefulness of their yowling!

If the coyote is a hobo, his rival in vagrancy, the

skunk, is a bandit. No member of Villa's gang ever entered a town on a looting expedition with more impudent assurance than, on a moonlight night, a skunk will swagger, self-invited, into your camp. He pays not the least attention to you as, awakening from your slumbers, you rise up on your cot and look at him.

He noses around your bread-box and sack of bacon with an air of ownership that is almost heart-breaking. He knows you are afraid to shoot him, and you can say, "Scat!" till you are black in the face; he only wiggles his tail in awful menace. Even if, upon his exit, at what seems a safe distance from the camp, you succeed in shooting him, he still gets even with you.

One word about the hydrophobia skunk. There is, of course, no special variety of skunk whose bite would convey rabbies. It is undoubtedly true, though, that skunks sometimes contract hydrophobia, and pass it on to humans by biting them. It is also true that owing to their habits of prowling about camp at night, a sleeping camper would be more in danger from a bite from a skunk than from any other animal, but it is easy enough to guard against this danger by sleeping on a cot or in a wagon or car, rather than to make one's bed on the ground. Also, one might go camping in Arizona for a year and never see a skunk. The danger is about the same as it would be from being struck by lightning in New York or Chicago.

The fox, like both the coyote and the badger, is found in desert and mountain. When in the low-

lands, at least, he prefers to live fairly close to civilization. The increased hazard of a farmer with a shotgun, plus chicken, he prefers to a hole in a more isolated section with a diet confined to ground squirrels and desert rats.

Before the white man came, along many of the Arizona streams were to be found not only raccoons, but beaver. Now 'coons are scarce and beaver almost never seen. A pair at least of the latter lived for a while near the Granite Reef dam of Salt River, and trees showing the marks of beavers' teeth are common along the Arizona canal. Badgers are occasionally found both in the desert and in the foothills.

The wildcat is the fiercest hunter of all of the carnivora of the state. Wild flesh or tame—he takes them both. He will stalk a cottontail or a quail with even greater skill than his domesticated cousin. The fattened turkey raised by the desert farmer he enjoys quite as much as you or I, and in the mountains, lodgings near a goat or sheep ranch offer possibilities of gastronomic bliss that even the dangers of the herder's gun can scarcely dim.

The largest of the predatory animals of Arizona is the mountain lion. He dwells in the mountains, sleeping in some sequestered canyon or hole in the rock by day and at night stalking the range calf or colt, when one blow of his strongly muscled paw will bring down his quarry. The lion is usually hunted with the aid of a pack of hounds, which, once on a hot trail, have little trouble in

getting him up a tree. Cowboys occasionally succeed in roping him, and consider him a good deal of a coward, but no one can deny his strength or muscular grace.

There are still a few bears in Arizona. Those that are left are found in the more remote highlands; a few in the White Mountains, a few on the Navajo reservation; in the Kaibab National Forest, north of the Canyon, and occasionally on the Mogollon Mesa. Most of them are black or brown, but occasionally even a silver-tip is seen.

Up to 1860 or '70 antelopes grazed over nearly all of the country now known as Arizona, and, though preferring the grassy uplands, made themselves at home on the desert as well. In different places on the northern plateau, bands of them were seen as late as 1885. They could get along on very little water, and if grass ran short, made out on brush and the tender shoots of trees. Mesquite beans were an ideal food for them. In a land of Indians and mountain lions, the antelopes' insurance against early mortality lay in their keenness of scent and fleetness of foot, but, though they could cope very well with their early enemies, when the white man with his Winchester rifle arrived, he all but exterminated these beautiful creatures.

However, in sequestered spots, in Yavapai, Coconino and Mojave counties, there are a few left which are carefully guarded by the game wardens.

There also remain a few mountain sheep, which keep to the drier and more isolated highlands.

Groups as large as fifteen or twenty are occasionally observed in the mountains of Pinal and Yuma counties, as well as in some of the mountains of the northern counties.

The mule or black-tailed deer has survived better than the antelope, probably for the reason that it is more natural for him to keep to cover. He loves the solitude of the mountain canyon, grown thick with chaparral, where a traveler might pass within a hundred yards of his hiding place without suspecting his presence.

White-tailed deer may also be found in different parts of the state.

Arizona now has wise, protective game laws, under which elk, mountain sheep and antelope may not be hunted at all, and deer only from October 1st to November 1st, with a bag limit of one deer with horns.

In 1913, under the direction of Dr. W. D. Horniday, a band of elk was brought into the state from Jackson's Hole, Wyoming. They are now ranging south of Winslow, below the rim along Chevelon Creek, where there is plenty of food. A second shipment was brought into the state in 1918.

BIRDS

Ornithologists, when considering the birds of Arizona, divide the state into three sections. The Lower Sonoran zone includes the lowlands of the south and west, most of the Little Colorado country and the Painted Desert. The Upper Sonoran

zone takes in the northeast and northwest corners of the state, as well as the foothills in the central part. The transitional zone embraces the higher plateaus and mountains. Each of these districts has its own distinctive birds, although in rare cases the same bird, like the phainopepla and the mourning dove, will be found in all three sections.

Limited space will permit mention of only the most conspicuous of our feathered aviators. Beginning with the king of them all, we introduce the splendid golden eagle, a much more noble bird than the bald eagle, which is used to typify the nation. His plumage is blackish brown, with neck feathers more golden and a tail partially mixed with white. They are found in the mountain regions in the north and eastern parts of the state, where their size, strength and beauty in flight make them objects of the greatest admiration to the Indian, who endows them with supernatural powers. Both the Hopis and the Navajos rob the nest of the young, keeping them in captivity to supply feathers for personal adornment or for ceremonials. The bald eagle is also occasionally seen in the highlands of the state.

To most summer visitors in Arizona the buzzard will be remembered as the desert's conspicuous bird. At close range he is repulsive in habit and ungainly in movement, but once on the wing, he will soar hour after hour against the pale blue sky, the personification of grace. A lift of a wing and he mounts upward till he becomes but a dot in the sky; a swoop, and again he is the perfect aero-

plane, moving without waste of energy or awkwardness of movement—the untiring master of his art.

Quite a different bird on the wing is the hawk, though he flies as gracefully, he keeps at it with less persistence. After a flight of a half hour or so there is apt to be an abrupt drop to the ground with a movement much quicker than the buzzard's. and when he rises, there will be a mouse or other animal or bird in his talons.

Within the limits of the state are to be found most of the western hawks, and while some, by reason of their raids on chicken yards, are a pest to the farmer, other varieties are most decidedly his benefactors.

The Cooper and the little sharp-shinned hawk are the worst poultry raiders, while the Harris, the zone-tailed, and the Swainson feed almost entirely upon rodents. George Wharton James gives a good rule for the hunter to follow when he says: "No hawk should be shot which displays red feathers on shoulder or tail."

The owl, most in evidence in the southern country, is the little burrowing owl, that takes up his dwelling in fox or badger holes, and apparently has no objection to renting out a portion of his quarters to a gopher, snake or even a rattler.

A still smaller owl is the tiny elf, which is no bigger than a finch, who builds his nest in deserted woodpecker holes in the giant cacti.

In marked contrast to the elf is the great western horned owl, who is both fierce and destructive,

and is strong enough to kill not only poultry, but squirrels and skunks. In the fall of the year the mournful hoot of these nocturnal birds may be heard in many a mountain canyon, and must send shivers down the spines of whatever rabbits there are within the sound of their fear-inspiring tones.

The most unique bird in Arizona is the chaparral cock, or road runner. He is a slim, brownish bird, who never flies unless pursued, and then for only a few rods at a time, or when he uses his wings to lengthen a jump to the low branches of a tree. However, after one has seen him run, keeping ahead of a galloping horse with greatest ease, he can see that flying would be a rather superfluous accomplishment. Even more than for his running the chaparral cock is noted for his fighting qualities. He is the only feathered creature known who has the nerve to attack a rattlesnake, and he will kill him, too; the lightning-like thrusts of his sharp beak being even quicker than a diamond-back's strike. Other hors d'oeuvre on his menu include lizards, grasshoppers and mice.

There is no steadier resident of this part of the country than the common mourning dove. While he is seen in greater numbers during the summer months, even in coldest weather there are a good many about, and in the early morning hours, just before sunrise, he swells out his throat with the lament: "Oh! Cold! Cold! Cold!" and he is right about it.

The Mexican ground dove is a tiny little fellow, but little over half as big as the mourner, and is friendly enough to fly down in your door yard and ioin the chickens in their morning meal. In spite of his diminutive appearance he is not in the least a peace dove. In the spring rival tiny cocks will abuse and fight each other in a way that for a dove is nothing less than scandalous.

But little larger than the Mexican is the Inca dove, the two birds so resembling each other that both are locally called Sonoran doves.

The white wing is a real pigeon. He loves the hot weather, staying in Mexico during the winter, and when his distinctive and elaborate call is heard in the valleys of the Gila and the Salt it is a sign that the summer is not far away. He rarely ventures into the mountains.

Arizona boasts of three distinct varieties of quail. The commonest is the Gambel—a crested, beautiful bird, marked much like the California valley quail, but with less brown or buff along his sides. The Gambel may be found not only in the desert country, where in such districts as the Salt and Gila River valleys, with an abundance of food, he multiplies prodigiously, but also in the moun-To the lover of birds there is no cheerier tains. music than the call of the quail mother to her young—their gentle conversational notes as they busy themselves in search of food, or the warning note of the cock as he does sentry duty on the limb of a convenient tree.

The scaled quail, a bluish-gray colored bird, with a small tuft of whitish feathers on the top of his head, is rather common in the southeastern part of the state. The Mearns or fool quail is so called from his too confiding disposition, allowing himself to be almost stepped on before taking flight. His plumage is handsome and striking, but the markings on his face are decidedly clownlike. They are found, among other places, north of the Grand Canyon.

There are more wild turkeys in Arizona now (1918) than there have been for years, being most plentiful in the White Mountains. Game wardens are now trapping them in the Apache National Forest, so that they may be reintroduced into their old haunts in the mountains in the southeastern part of the state.

Of all the song birds of the Sonoran zone, to the thrasher easily belongs first place. If there is a lovelier song in all the world that comes from feathered throat than the liquid, golden flood of these gray Carusos of the desert, we have never heard it. The lady next door likens its music to the glittering notes of a master violinist. Whatever it is, it is love music—a "You-and-I-only-in-all-the-world" enchantment, that brings spring to the pulse and youth and love to the heart.

Do not think that in thus honoring the thrasher we have forgotten the mocker. The mocker is a bird of delight, and he sings from a throat of gold and a full heart—but oh! his fatal versatility! You listen while he pours forth a song that almost breaks your heart for beauty, then he stops and imitates the harsh notes of the cactus wren, or the call of a flycatcher.

If Melba would pause in the midst of her "Addio," from Boheme, and trill a phrase from "Turkey in the Straw" you might be vastly amused, but you could never take her seriously again. So with the mocker—he is frivolous.

While the thrasher's season of song begins in the south, in the last of February, and the mocker perhaps a month later, we love the lark because he is the first real singer of the year. You can hear his cheery notes with which he greets the sun all the late winter through.

The oriole is a summer bird appearing in the valleys to the south as soon as the ash trees are fully in leaf, announcing himself with a little bar of music full of quaint beauty. You will probably hear his song weeks before you see him. Later, however, when your figs and apricots are ripe, you are able to admire his dazzling cloth of gold without any trouble whatever. But unless he brings too many of his family with him you are willing to sacrifice some of your fruit for the distinction of his elegant company.

An exceptionally companionable bird of the Lower Sonoran zone is the red-winged black bird. You find him all through the Salt River valley, frequenting, especially, alfalfa fields and city lawns, where there is water about. During the winter they congregate in great flocks, and, like most birds, are at their best in the mating time in the spring. It is then that the red epaulets on the shoulders of the male are the brightest, and the sheen of his black coat the most brilliant. How he

does preen and strut before his lady, and his call of "Ok-ah-lee-ah!" is certainly the epitome of good spirits.

The yellow-headed black birds make even a more striking appearance than the red-wings. Their usual habitat is the swamps and tules, but occasionally after rains they are seen in distant localities, like Tucson and Phoenix, where their discordant notes are as unmusical as their plumage is beautiful.

Of all of Arizona's long list of handsome birds, including the pyrrhuloxia, the bunting and the tanager, there is none more beautiful than the Arizona cardinal. Though not common in the Salt River valley and other desert portions of the Lower Sonoran zone, he may be often seen in canyons in the lower foothills, like that at Castle Hot Springs, or about the Roosevelt Lake, where he is the admiration of all beholders.

When we reach the mountains practically all of the lowland birds have disappeared. Here our choicest song birds are the canyon wrens, whose rippling, joyous music, as they rollick down the scale, is a delight to the heart. They are fearless, friendly birds. A pair of them built a nest on a beam in our study, rearing a family within eight feet of our clattering typewriter.

Another favorite mountain bird is the blackheaded grosbeak, who is handsome in appearance and has a song both sweet and clear.

Humming birds are found all through the mountains. Indeed, altogether in the state, there are

fourteen distinct species, and only eighteen species in all the United States.

The hobo of bird land is the blue jay. In Arizona he lives exclusively in the mountains. If we are camping, the Woodhouse jay, a non-crested bird, who dresses in gray-blue, will nonchalantly drop in on us almost before the provision box is opened.

The first thing he says is: "I'll stay to lunch if you don't mind," and in his anxiety to assure you that he is thoroughly at home, he will take the bacon as it sizzles in the frying pan—if you give him half a chance.

The dark blue, crested jay is also often seen in the mountains. He is a handsomer bird than the Woodhouse and with better manners.

Among the few birds that inhabit both the mountains and the lowlands is the western robin, who, if the season is rainy, is apt to winter in the warm valleys of the southern part of the state, going into the mountains for the summer.

The elegant phainopepla, with his gentlemanly suit of black and white and neat helmet, also is a mountain summer visitor, who spends the late winter season in the valleys.

The busiest birds in the mountains are the woodpeckers, after the acorns are ripe. They first bore holes in the trunk of a dead pine tree, then each gets an acorn and drives it into his hole—not, as the uninformed might suppose, to eat the acorn afterwards, that would be too simple—later a worm comes to eat the acorn, then the woodpecker returns to eat the worm.

POISONOUS CREATURES

When, thirty years ago, we were bouncing on a stage coach seat en route for Phoenix, Arizona, the tedium of the trip was relieved by the conversation of our seat-mate.

The subject under discussion was the various venomous creatures of the state.

"Now when you git to the Lemon House," said the Arizonan, "and you take off your shoes to go to bed you wanta put 'em tops down. If you don't, by mornin' they'll be half full of them centipedes. You see, they crawl in after dark to get away from the night air."

He bit off the end of a plug of Climax and continued: "The most interestin' sight, though, is to see one of them 'ere fur-bearin' tyrantulars a-sittin' in his web in the parlor winder a-catchin' flying scorpions. They charm 'em by sort of whistling at 'em. And speaking of rattlesnakes! Why, kid, they is that common and sizable in Arizony that the Injuns cut 'em up in four-foot lengths and sell 'em for cord wood."

The silence that ensued was broken by a timidlooking lady on the opposite seat, who asked the monologist if they had to split up the largest pieces to get them into the stove.

At the outset, let us assure any stranger contemplating a visit to the state that the man exaggerated! There are rattlesnakes in Arizona—eleven varieties, to be exact—ranging all the way from the big western diamond-backs, who will, if thor-

oughly nourished, attain a length of seven feet, down to the horned rattler, about a third of his length. This particular variety is locally known as a "Side-winder" on account of a peculiar looping motion it takes on, which moves the creature in an oblique direction. His head looks not unlike medieval pictures of the devil, and his character rather carries out the verisimilitude.

Still, to give the devil his due, it must be admitted that rattlesnakes usually are busy minding their own business, which does not include hunting down humans; and all of them are very apt to rattle before they strike, which should speak largely to their credit.

Personally, we are inclined to think that the rattlesnake family has a more severe indictment against us than we have against it. Frequently, after a member of the species has apprized us of his presence by an apologetic rattle, we have slain him for his pains. More than that, we once did one a serious injustice. We were raising young turkeys, and after missing one or two we found a rattler near their yard with a bulge in his middle that was more than suspicious. After executing on this circumstantial evidence, a post-mortem proved the bulge to be a gopher. We had sacrificed a friend!

The only man we ever knew who was killed by a rattlesnake was a gentleman who claimed to be a snake charmer, and to prove it, pulled off a corner of a screen over a box of diamond-backs in Barnes & Benham's old curio store, at Phoenix. and attempted to stroke one on the head. They buried the man the next day.

When tramping on the desert or in the mountains there is little danger from rattlesnakes if one minds his step, and when climbing over rocks one never puts his hand in a place he can't see. Although there are few more venomous creatures in the world than a rattlesnake, its bite is not necessarily fatal. When a victim is struck, a ligature should be placed above the wound at once. If bitten on the finger, ligature only the finger; if on the hand or arm, or on the foot or shank, place the ligature above the elbow or knee, where there is but one bone in the limb. Do not leave a ligature in place for more than twenty minutes, lest mortification sets in.

As quickly as possible after being struck, but only after applying the ligature, cut across the fang-punctures for about one inch, both ways, deeper than the fangs penetrate. If bitten on the finger, cut to the bone at least lengthways. Bleed the wound thoroughly and rapidly. After good bleeding, wash the wound thoroughly with potassium permanganate, in enough water to produce a deep wine color. This chemical destroys all venom with which it comes in contact. If no water is at hand, use it dry or with saliva. Now the ligature may be removed, and if fainting spells of the victim indicate its need, a hypodermic dose of strychnine may be given. Naturally, if a physician can be obtained he should be sent for at once.

The only other poisonous snakes in Arizona are

the Sonoran coral snake and the annulated snake. The coral snake is slender, seldom above two feet in length, and is found in central and southern Arizona. It is marked with black, yellow and red bands encircling the body, the black always bordered on both sides by yellow. The annulated snake, though rare, has been seen in the southern part of the state. It is rather slender, about two and a half feet long, with poison fangs in the back of the mouth. Bites from all poisonous snakes should be treated as prescribed for rattlers.

There is a popular conception outside the state that the Gila monster is almost as dangerous as a rattlesnake. This is pure libel. His bite is dangerous, but not deadly, the poison glands being in the chin. While sluggish, he has been known to turn and snap with surprising agility, and then to hang on to what he has bitten with the tenacity of a bull dog. It is when the jaws are thus fastened that the poisonous saliva flows from the swollen glands of the chin and is absorbed into the wound. Charles T. Vorhies of the University of Arizona, who has made an extensive study of Arizona's poisonous creatures, reports that he can find no authenticated case of death caused by the Gila monster bite in humans, or even very severe injury. When fully grown, the Gila monster is fourteen to twenty inches long, and his salmon-pink. beaded skin is marked with what a fashion paper might call a tasteful design worked out in black spots. His feet look uncannily like hands, and he has an unpleasant habit of hissing when angered.

In captivity his sluggishness seems to increase. His favorite food is eggs, raw or boiled, and when fasting he is said to live off of his fat tail, which grows more and more attenuated until he takes up eating again. The females lay from six to thirteen eggs in July and August, burying them from three to five inches in the sand. In the winter the monster hibernates, burying itself. Aside from the Gila monster and a closely related species found in Mexico, absolutely no other lizards are poisonous.

Next to the Gila monster the largest lizard to be found in Arizona is the Chuckawala, which is about twelve inches long, brownish in color, with a big, broad head. When young he is olive colored, spotted with black on his back. He is seen most often in rocky foothill country.

The most beautiful lizard in the state is the Collar lizard, beautifully mottled in green, with a collar of black, with occasional markings of red. Including his long, slim tail, he will often attain a length of about a foot. Like the Chuckawala, he is usually found in the foothills.

In spite of our companion of the stage coach, of course scorpions do not fly, but they can scuttle along a wall at a gait that makes flying almost a superfluous accomplishment, also they are not apt to be found in hotel parlors—a deserted miner's cabin in the foothills would be a more likely place. The scorpion carries a lance at the end of its abdomen, and throws it up and forward over the back, striking with stinging force. Though it is

always ready for business, it does but little more damage than the similar weapon of the yellow jacket. The whip scorpion, when disturbed, gives off an odor resembling that of vinegar, and in Texas is called the Vinegarone. It is entirely harmless. In Arizona the name is sometimes applied to a spider-like looking creature, which the Mexicans call the Mata Venado (kill deer). The Mata Venado has an abdomen about seven-eighths of an inch long, shaped something like a caterpillar, with a head the shape of a big apple seed. Its spider-like legs and body are somewhat hairy and cream colored. This nocturnal animal is greatly feared by the Mexican labor population, but observers have allowed themselves to be bitten without suffering anything worse than a passing pain from the wound.

Centipedes, like other Arizona venomous creatures, do not make a practice of tracking down humans. If you want to see one, you must look him up. Under a board that has lain long in a damp place would be a likely place to find one; or, if you are in the mountains, under a bowlder. The mountain variety is larger than those found in the valleys, attaining a length from seven to ten inches, and with their greenish scales and many wriggling legs, they are not pleasant objects. The poison glands in a centipede are within the bases of the front pair of legs. Vorhies reports two cases of centipede bite; both were painful; one was described as feeling like a hot needle at the instant of infliction. Neither case was more severe than the pain following a honey bee's sting.

The tarantula, hairy, brownish-black in color, like all spiders, is to some extent poisonous, and, though his reputation is worse than his bite, it is no better than his looks. In full grown ugliness, including his legs, he is about the size of a tenyear-old child's hand, and always looks as though he needed a shave. Though his appearance would condemn him in any court, like the centipede, he seems quite as anxious to get away from you as you are to avoid him. From Dr. Vorhies' investigations it would seem that while the tarantula's bite was more severe than the sting of a scorpion, it by no means need inspire terror. In the most serious cases on record the local pain lasted but a few days, though complete recovery took some little while longer.

No account of Arizona's curious creatures which omitted the Agassiz's land tortoise would be complete. In size his short, broad shell is about nine by seven inches. In spite of aquatic traditions, he can't abide dampness, and if in captivity his dwelling place is not warm and dry, he will soon die. When found wandering over the desert mountains he looks about as suited to his environment as an oyster would in the same locality.

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